AN EXAMINATION OF THE EFFORT AND AGGRESSIVENESS OF PROFESSIONAL TAX PREPARERS: THE EFFECTS OF ECONOMIC SANCTIONS AND ROLE PERCEPTIONS

By

ANDREW DANIEL CUCCIA

A DISSERTATION PRESENTED TO THE GRADUATE SCHOOL
OF THE UNIVERSITY OF FLORIDA IN PARTIAL FULFILLMENT
OF THE REQUIREMENTS FOR THE DEGREE OF
DOCTOR OF PHILOSOPHY

UNIVERSITY OF FLORIDA

1990

ACKNOWLEDGEMENTS

I am indebted to several individuals whose contributions facilitated the completion of this research. Professor Sandra Kramer, my dissertation committee chairperson, provided both assistance and encouragement at every stage of the process. Her help at both the dissertation and coursework phases of the program is appreciated. Professor Gary McGill was also instrumental in both the development of the research project and its execution. Professor McGill's critical approach contributed to the quality of the research while his collegiality aided in its completion. His encouragement and friendship are appreciated. I am also grateful to Professor John Lynch for his methodological and design assistance as well as his interest in both my research and myself. Professor John Kramer also offered valuable insight into the research as well as the process.

Professor Doug Snowball aided in enlisting the participation of a number of subjects. His assistance is greatly appreciated. Additionally, a special debt is owed to those firms and individual participants without whose time and effort the research would not have been possible.

The use of Professor Merrie Bruck's computer program to develop the task instrument contributed to both the timely completion of the project as well as to its quality. I am also indebted to the American Institute of Certified Public Accountants for their financial assistance.

Finally, I am most grateful for the technical assistance and continuous encouragement of my wife, Cindy. Her support, both as a colleague and a companion, were invaluable.

TABLE OF CONTENTS

ACKNOWLEDGEMENTS ii

ABSTRACT vii

CHAPTERS

1 INTRODUCTION AND BACKGROUND 1

Introduction 1
Professional Tax Preparers 3
    Factors Influencing the Use of Preparers . . 4
    Services Provided by Preparers 6
    The Tax Preparation Industry 7
Professional Tax Preparers and Compliance 8
Compliance and Aggressiveness 12
The Economic Approach to Compliance and Aggressiveness 15
The Success of the Economic Approach 18
The Research Questions 22

2 DEVELOPMENT OF RESEARCH 24

Introduction 24
Taxpayer Compliance 25
    Deterrence Theory 25
    Economic Deterrence 27
    Fiscal Psychology 33
    Economic versus Non-economic Factors 40
Preparer Research 42
    Economic Models of the Preparer 43
    Previous Attitudinal Research on Preparers . 49
    The Theory of Psychological Reactance 54
The Present Research 62

3 THEORETICAL MODEL AND HYPOTHESES 64

Introduction 64
A Purely Economic Model of the Preparer 64
    Information Acquisition Stage 67
    Evaluation Stage 72
A Psychological/Behavioral View of the Preparer . 74
    Psychological Reactance 75

Reactance and Professional Preparers 75
An Integrated Model of the Preparer 79
Hypotheses 80
Summary 82

4 RESEARCH DESIGN AND METHODOLOGY 85

Introduction 85
Preliminary Analysis 85
Factor Analysis 86
Discriminant Analysis 89
Experimental Design 90
Methodology 91
Experimental Task 91
Operationalization of Variables 94
Summary 107

5 RESEARCH RESULTS 114

Introduction 114
Descriptive Data 115
Subjects 115
Attitude Patterns 119
Attitude Differences across Preparer Types . 121
Manipulation Checks 123
Hypothesis Tests 125
The Effect of Penalty Threats on Preparer Effort 125
The Effect of Penalty Threats on Preparer Aggressiveness 130
Tests of Competing Hypotheses 132
Summary 138

6 SUMMARY AND CONCLUSIONS 169

Introduction 169
Summary and Discussion of Results 169
Description of Subjects 169
The Hypotheses 171
Contributions and Implications 177
Research Contributions 177
Policy Implications 182
Limitations 185
Future Research 189

APPENDICES

A ANALYTICAL DERIVATION OF HYPOTHESES 191

B EXCERPTS OF EXPERIMENTAL TASK 194

C SUBJECTS' RESPONSES TO DEBRIEFING QUESTIONS . . . 213

D RESULTS OF FACTOR ANALYSIS 217

REFERENCE LIST 219

BIOGRAPHICAL SKETCH 230

Abstract of Dissertation Presented to the Graduate School
of the University of Florida in Partial Fulfillment of the
Requirements for the Degree of Doctor of Philosophy

AN EXAMINATION OF THE EFFORT AND AGGRESSIVENESS OF PROFESSIONAL TAX PREPARERS: THE EFFECTS OF ECONOMIC SANCTIONS AND ROLE PERCEPTIONS

By

Andrew Daniel Cuccia

December 1990

Chairperson: Sandra S. Kramer
Major Department: Accounting

The threat of economic sanctions has traditionally been used to influence tax reporting decisions of both taxpayers and professional tax preparers. The penalties faced by preparers have increased significantly in recent years and are currently the subject of much debate. Stricter reporting standards for preparers and stronger related penalties were adopted in 1989. There is little evidence, however, that such penalties are effective in influencing the recommendations of professional preparers.

A comprehensive model of the preparer is developed which predicts that the threat of economic sanctions should affect not only the aggressiveness of recommendations made by preparers when faced with ambiguous issues but also the effort invested by preparers in identifying taxpayers' unambiguous reporting positions. Different client expectations and role perceptions held across preparer groups, however, are expected to moderate the form of the effect of economic sanctions.

To test the model, commercial tax preparers and CPAs were given an interactive tax preparation task and paid a wage based on the income the task would generate if performed in real life. The predictions of the model related to preparer effort were supported for both types of preparers. When exposed to a strict liability penalty, those subjects who traditionally serve lower-income taxpayers invested less effort in identifying tax reporting items that were expected to increase the exposure to the penalty. Those who traditionally serve wealthier taxpayers, however, actually increased their level of effort. There was no effect of the penalty threat on the aggressiveness of the preparers' recommendations regarding ambiguous issues.

The results are consistent with the theory of psychological reactance predicated on the expectations of each preparer-type's client base and role perceptions both of which were identified in the experiment. The reaction of CPAs and the potential decrease in their net wage, however, cannot be attributed to any economic motives. The implications for administrators and the tax system are assessed including the potential effect of controversial penalty threats on taxpayers' effective tax rate structure.

CHAPTER 1
INTRODUCTION AND BACKGROUND

Introduction

The role of professional tax preparers in securing tax compliance has begun to receive increased attention.[1] In recent years a number of changes have been proposed regarding the potential sanctions faced by preparers for positions taken on the returns that they prepare. These sanctions have become increasingly stronger since they were first enacted in 1976.[2] However, there is no evidence that these increased sanctions actually discourage the type of behavior they were intended to deter. Further, it is possible that the threat of penalties of the type recently added to the Internal Revenue Code[3] in 1989 could result in consequences not intended at the time they were adopted. The present research is concerned with effects increased penalties and sanctions might have on preparers and on the conduct of tax practice.

---

[1] Throughout the remainder of the dissertation, the term preparer will refer to professional tax preparers and does not include individuals who prepare their own returns.

[2] The Tax Reform Act of 1976 gave the Internal Revenue Service (IRS) the power to penalize preparers who failed to include their identification numbers on returns, who cashed refund checks, or who negligently or intentionally disregarded the law when preparing returns. In 1986, amendments were proposed to Treasury Circular 230 which governs the conduct of tax preparers practicing before the IRS. The changes would have tied preparer penalties to the substantial underpayment penalty of IRC Code Section 6661 related to taxpayers. Imposition of a taxpayer penalty under Section 6661 would likewise subject the preparer to sanctions which could include disbarment from practice before the IRS. The Revenue Reconciliation Act, passed as part of the Omnibus Budget Reconciliation Act of 1989 on November 22, 1989, included a comprehensive revision of the civil sanctions applicable to taxpayers and tax preparers. The new law replaced the preparer penalties for negligence and willful understatement of tax liability with penalties for (1) recommending positions for which "there was not a realistic possibility of being sustained on its own merits"

In this chapter, the research questions and many of the relevant issues will be developed. How the preparer came to be viewed as an important factor in tax compliance is discussed first. The possible effects that preparers might have on the level of taxpayer compliance are examined after a brief overview of the tax return preparation industry and some of its characteristics. Next, a distinction is made between the traditional view of noncompliance as tax cheating and the issue of overaggressiveness which is addressed in the current research. Finally, the methods which have been used over time to discourage noncompliance and overaggressiveness, as well as the potential consequences of those methods, are discussed.

---

and (2) willful neglect or reckless disregard of the rules. The Report of the House Ways and Means Committee explains that the "realistic possibility" standard was intended to be a higher standard than that which previously existed.

[3] All references to the Internal Revenue Code are to the Internal Revenue Code of 1986 unless otherwise noted.

Professional Tax Preparers

Tax compliance has received much attention over the years with the effects of both economic and non-economic variables on the level of compliance examined extensively. (See Jackson and Milliron [1986] for a review of this literature.) The potential impact of third party preparers, however, has been a relatively neglected factor until recently. The use of professional tax preparers has become increasingly common, rising each year since the passage of the Economic Recovery Tax Act of 1981 (ERTA). In 1987, nearly one-half of the approximately 100 million federal individual tax returns filed involved third party preparers [IRS, 1989, p. V-20]. Understandably, the role of preparers in compliance decisions has received increased attention from the IRS as well as academic researchers.

Regardless of any direct effects preparers may have on compliance, their relationship with taxpayers can be important to the taxing authorities for a number of reasons. First, preparers provide an important link to taxpayers who may have both the desire and opportunity to legally or illegally avoid paying taxes. As such, they are taxpayers' primary source of information about compliance requirements and the consequences of noncompliance. Secondly, the practitioner can serve as a transmitter of values and norms related to tax compliance. Thirdly, the practitioner represents a network through which the returns of more than 50 million taxpayers can be affected [Roth, 1987].

The interest in professional preparers then can be expected to be broader than just their effects on compliance. The following sections will discuss the factors influencing the decision to employ a preparer, the actual services desired from preparers by taxpayers, and the characteristics of the preparer industry itself. A discussion of the effects of preparers on tax compliance will follow.

Factors Influencing the Use of Preparers

The increasing use of paid preparers in the tax filing process raises the question of what influences a taxpayer to seek professional assistance. While it may be asserted that increasing complexity creates a need to purchase the expertise of a tax preparer, this does not explain why some taxpayers seek out professional preparers while others do not.

Trying to address this question, Slemrod and Sorom [1984] found a positive relationship between income and age and the use of professional tax assistance. However, underlying root causes (i.e., the complexity of the return, the marginal benefits available to the taxpayer, etc.) were not determined. Slemrod [1985] argued subsequently that purchasing tax assistance, and thereby legally reducing taxes, is a purely economic decision which allows for the consumption of other desired goods by increasing after-tax wealth. Tax assistance, he argues, should be demanded more as tax rates, the opportunity cost of time, and wage rates rise. Consistent with this hypothesis, he found empirically that expenditures on tax assistance were in fact positively related to age, self-employment (as opposed to being an employee), and marginal tax rates and negatively related to education level. Apparently, as the economic benefits of engaging a preparer rise (i.e., either due to greater potential tax savings because of higher tax rates or greater opportunity costs in the form of a higher foregone income), the probability of paying for a professional preparer will also rise. Using Tax Compliance Measurement Program (TCMP) data from 1983, Long and Caudill [1987] also support Slemrod's hypothesis. They found the use of a paid preparer to be significantly and positively related to income, marginal tax rates, self-employment (possibly representing the complexity of the return) and the number of schedules included in the return. They conclude that reducing the marginal tax rate and simplifying the income tax laws will reduce the overall tax burden, the total cost incurred by taxpayers of complying with the income tax laws, by reducing expenditures on professional tax assistance.

Services Provided by Preparers

The above findings give an indication of the factors influencing the decision to engage a preparer, but they do not directly indicate what taxpayers are expecting from the preparer. In a national survey, Yankelovich et al. [1984] asked taxpayers the reason for engaging a preparer. Sixty-three percent of the respondents indicated that accuracy (i.e., the fear of making a mistake if their return was self-prepared) was their primary concern. Only 13 percent had tax savings as the primary motive. A taxpayer opinion survey conducted by the IRS [1988a] found similar results, with the desire to file a correct return and tax savings given as the two greatest concerns of taxpayers who hired a preparer. Based on the results of these two studies, it may be that increased complexity is the cause of increased preparer use. Given the studies mentioned above, it appears likely that inaccuracies due to complexity can be expected to effect taxpayers differently. It may be the combination of complexity and the potential cost of errors resulting from the complexity that together determine the taxpayer's decision to use a preparer.

In a slightly different approach, Collins et al. [1988] asked subjects their primary motive in filing their income tax return as opposed to their motive for hiring a preparer.

In a survey limited to respondents in Oklahoma and Pennsylvania, they found that approximately 70 percent of their respondents approached the process with the desire to file an accurate return, while 25 percent were primarily concerned with minimizing their taxes. There was no significant relationship between use of a professional preparer and the taxpayers' primary motive in filing, however. This suggests that the surveys cited earlier may have captured the overall motives of taxpayers when filing their returns, and that engaging a preparer was merely an attempt by the taxpayer to accomplish his primary objective. Those taxpayers engaging a preparer may have no greater desire to reduce their tax liability than those who do not.

It will be shown below that taxpayers' expectations when engaging a preparer may be an important factor in the preparer's tax compliance recommendations. To the extent that the services expected by the taxpayer could be affected by sanction threats made by the IRS, taxpayer expectations may also moderate the effect of such threats.

The Tax Preparation Industry

Many preparer studies ignore the fact that tax preparers actually represent a very differentiated industry. Professional preparers include individuals and firms as diverse as the seasonal preparer, the sole-proprietor, the multinational firm of certified public accountants and tax attorneys. There is currently no requirement that an individual possess any formal qualifications to sell tax services and a large proportion of professional preparers are unregulated. However, business schools attract thousands of students each year to graduate tax programs which culminate at least five years of study. Many of these students then go on to become certified public accountants who must complete annual continuing professional education standards set by their profession. It is commonly believed that members of this diverse tax return preparer industry provide, and their clients expect, very different services. These different expectations may result in different preparer types having dissimilar effects on taxpayers as well as reacting differently to sanction threats. However, these differences are often ignored in research examining tax preparers.

Professional Tax Preparers and Compliance

Tax compliance has received increasing attention in recent years. The growing body of research attempting to describe and explain the tax compliance phenomenon is good news in itself as are recent estimates of a shrinking tax gap, the difference between taxes legally owed and those actually paid. According to the IRS, estimates of the tax gap are down as much as $30 billion from projections made five years ago. However, the estimated difference for 1987 was still $85 billion [IRS, 1988b], and research in the academic community has offered little guidance to policy makers on how to close that gap. Concerns include the effects of revenue losses on the welfare of the economy and the continued success of the voluntary tax system itself for which many taxpayers have apparently begun to lose respect.

With the increasing role paid preparers have in the tax filing system, the question of their effect on the compliance problem arises. At first glance, some empirical studies might be interpreted as suggesting a negative effect of preparers on compliance. For example, the surveys previously discussed found tax savings to be a major reason that taxpayers hired professional preparers [Yankelovich et al., 1984; IRS, 1988; Collins et al., 1988]. In a direct comparison of self-prepared versus paid-preparer returns, Long and Caudill [1987] found that after controlling for complexity, income level and filing status, the use of a paid preparer resulted in tax savings in all income categories examined. These tax savings, however, could be due to the expertise of the preparers concerning the tax law and do not necessarily indicate a negative effect of preparers on compliance.

In a more direct test of the effect of preparers on compliance, an analysis of 1979 TCMP data found that while only 45% of all returns audited by the IRS were prepared by third parties they accounted for nearly 75% of the dollar amount of all audit adjustments [IRS, 1985]. This type of simple analysis, however, doesn't control for at least two other factors which may contribute to the results: (1) possible differences in the types of returns prepared across the two groups and (2) differences in the taxpayers across these two groups. If taxpayers who go to preparers are less compliant than those who do not, then the greater number of adjustments attributed to the preparer group may be due to the taxpayers themselves rather than the preparers. Likewise, users of preparers may have higher dollar items in their returns and the above results might only reflect this difference. Finally, users of preparers may be systematically involved in more complex transactions than those who do not use preparers, so that either the facts or the application of the law to the facts is less straightforward. Further analysis of the IRS data which controlled for the complexity of the return revealed that self-prepared returns had the largest adjustments [Smith and Kinsey, 1987]. While using TCMP data may focus on noncompliance better than merely examining reported liabilities, a number of problems exist with using audited tax return data to measure compliance. These problems include the difficulty in identifying all potential sources of noncompliance and the necessity of ignoring any audit adjustments that are subsequently overturned on appeal or acquiesced to by the taxpayer without true resolution.[4]

Using a different approach, Collins et al. [1988] operationalized noncompliance from the taxpayer's point of view. They asked taxpayers if they had either overstated deductions or understated income in the last five years. The subjects' primary motive in the filing process was found to be significantly correlated with the reported level of compliance. Those indicating that tax minimization was their primary concern admitted to cheating more often than those indicating that accuracy was their main concern. Preparer use, however, was not significantly correlated with compliance. Apparently, taxpayers who want to deliberately misstate their liability may just as easily do so through a professional tax preparer as directly. However, if preparers have a direct effect on compliance, asking taxpayers about their own noncompliance may not reveal it. By engaging a preparer, the taxpayer may believe that the only misstatements on his return are the ones attributable to himself. However, asking the taxpayer about his own compliance will not reveal this if the preparer is making determinations regarding compliance of which the taxpayer is unaware.

---

[4] The number of appeals as a percentage of cases in which additional taxes are proposed was 17.2% in 1986 [IRS, 1986].

Compliance and Aggressiveness

Much of the research concerning professional tax preparers can be viewed as extensions of taxpayer compliance research (described in Chapter 2). Accordingly, many preparer studies have implicitly examined tax cheating. It has come to be recognized, however, that the type of noncompliance which preparers may influence might be inherently different from that which is identified with taxpayers. Accordingly, the traditional ways of looking at taxpayer noncompliance may not be appropriate when examining preparers.

There may be factors such as professional codes of ethics, high visibility and reputation which prohibit the vast majority of preparers from cheating in most circumstances. However, there are innumerable items in the tax laws and an infinite set of factual situations for which the proper tax treatment is not clear, so that two parties, each acting in good faith could have different interpretations. In these situations where the law is ambiguous, preparers may use their expertise to exploit the law in ways which were unintended and/or unforeseen when the law was passed (e.g., Klepper and Nagin, [1987]). Alternatively, preparers may act to curb exploitation by taxpayers when they are aware of such a predisposition by clients [Helleloid, 1989]. In such ambiguous situations, it is difficult to talk about the correct tax liability or the level of compliance. Rather, administrators and researchers refer to the degree of aggressiveness exhibited by preparers. It is the aggressiveness of recommendations, not tax cheating, which is examined in this study.

Aggressiveness is viewed differently by some tax preparers and tax administrators. While the generally accepted view of the preparer is that of a taxpayer advocate, some within the IRS believe that the preparer is overreaching and has lost sight of a duty to aid in monitoring the integrity of the tax system [Shapiro, 1987]. This view is demonstrated by the recent proliferation of preparer penalties in the Internal Revenue Code as well as the proposed changes to Treasury Circular 230 governing the rules of tax practice before the IRS [Coyne, 1987].

At the same time, preparers acknowledge the existence of a duty to uphold the law as it exists, and also claim that this duty should not compromise their position as client advocates. It is sometimes suggested by preparers that increased preparer penalties and requirements are attempts to have the preparer act in the capacity of a government agent. Such a perception could have at least two negative consequences. First, a taxpayer may be less likely to initially retain the preparer if such a perception is held. If a preparer is retained, the taxpayer may be less likely to listen to the advice that is given and stay away from any areas which are clearly noncompliant since the loyalty of the preparer giving the advice might be questioned. This may mitigate any positive effect preparers might have on compliance [Klepper and Nagin, 1987].

Secondly, a preparer that adopts the perception that he is an extension of the IRS may expend less effort on behalf of his client because he sees his incentives as coming more from the IRS than the taxpayer. An example of such a result might be seen in the IRS's own telephone assistance program. During the 1988 filing season, the GAO surveyed responses of IRS phone personnel to 20 test questions to assess the accuracy of the information being provided. Only 64% of such questions were answered correctly. The primary cause of incorrect answers was the failure of personnel to probe for all pertinent facts. Such personnel are hired for the primary purpose of assisting taxpayers, yet they are still government employees and taxpayers have no way to motivate them to supply the required effort level. While it could be argued that there are different motivations and expertise levels between professional preparers and IRS phone personnel, a change in the relative influence of the IRS and the taxpayer over the incentives of preparers may prevent them from providing adequate services.

While empirical research cannot establish a normative standard for preparer aggressiveness, it is nonetheless interesting and useful to investigate those factors which might influence preparer aggressiveness. Additionally, the possibility of other unintended or unforeseen effects of specific influence attempts may be at least as important as their effects on aggressiveness.

Of course, aggressiveness is not limited to that described above. Another type which has been attributed to preparers is the willingness to take positions on returns without insuring that the taxpayer has adequate substantiation. This may include everything from merely not asking for documentation for items the legitimacy of which the preparer has no particular reason to doubt, to looking the other way when he believes the item is fabricated. One might also include as aggressiveness such things as the suggestion by a preparer to fabricate support for a deduction or to take advantage of the audit lottery and not report taxable income. Failure to ask for documentation and actively suggesting inaccurate reporting, however, should be seen as qualitatively different from each other and from the aggressiveness described above and should be considered separately.

The Economic Approach to Compliance and Aggressiveness

The approach taken by tax administrators in dealing with compliance and aggressiveness by both taxpayers and tax preparers has been primarily economic. Appropriate levels of penalties and detection risk are sought so as to encourage maximum voluntary compliance. Given heightened budgetary constraints, overall audit rates have fallen from roughly 5.5% in 1964 [Steuerle, 1986] to .92% in 1988 [IRS, 1990]. However, the IRS has instituted a number of taxpayer and preparer penalties intended to increase compliance as well as curb aggressiveness. The number of separate penalties included in the Internal Revenue Code exceeded 150 in 1989, up from 13 in 1954 [IRS, 1989, p. V-1] and 64 in 1975 [IRS, 1989, p. I-1]. While most of these deal primarily with noncompliance, penalties are also used to combat aggressiveness. For example, Sec. 6661, added in 1982, calls for a 25% penalty for any substantial underpayment of taxes. A substantial underpayment is defined as one arising due to the taking of a position on a return for which there is no substantial authority contained in the tax law. Understandably, the meaning of the phrase substantial authority and its use as a standard of reporting has been the subject of much debate [e.g., Podolin, 1988; Johnson, 1989].

In addition to the number of penalties added to the Code recently, it might be argued that penalties are being more vigorously enforced. As former IRS Commissioner Lawrence T. Gibbs has been quoted, "If you take the tax acts of 1981, 1982, 1984, 1986, . . . you see that Congress has added penalty after penalty, and, in many cases has increased them substantially. And IRS agents in the field have administered these in a strong and forceful manner" [Wilde, 1988, p. 4].

The first preparer penalties included in the Internal Revenue Code were enacted in 1976. These included Sec. 6694 covering the understatement of a taxpayer's liability by a preparer due to negligence or fraud and Sec. 6695 covering the failure of a preparer to sign a return and the filing of an incorrect information return. In 1986, there were a total of 12,065 preparer penalties assessed [IRS, 1986, p. 17]. Also in 1986, 14% of all paid preparer returns were prepared by preparers who had penalties proposed for assertion and 8% were prepared by preparers who actually had penalties assessed against them [IRS, 1987, pp. 73-74].

In addition to these relatively objective penalties aimed at compliance, there has been a trend to try to use penalties to influence the aggressiveness of positions recommended by preparers. Treasury Circular 230 contains the rules governing the right to practice before the IRS for CPAs, attorneys and enrolled agents, and includes certain penalties related to these groups. In 1986, the Treasury proposed that the penalties included in Circular 230 be severely strengthened and tied to Sec. 6661. As proposed, any paid preparer would have faced suspension or disbarment from practicing before the IRS for recommending any position taken on a return that results in a taxpayer penalty under

Sec. 6661.[5] The newest penalties added to the Code in 1989 include accuracy-related penalties for preparers for the first time. While the standard used is not the substantial authority standard of Sec. 6661, preparers are subject to penalties for recommending positions which are later deemed to be without a "realistic probability of success." It is apparent then that penalties are not only being used for what was traditionally thought of as noncompliance but also for what some believe to be aggressive but legitimate interpretations of the law.

The Success of the Economic Approach

In spite of the reliance placed on the economic approach to encourage compliance and curb aggressiveness, policy makers note the lack of empirical evidence supporting the use of the economic approach [IRS, 1988c]. The success of the economic approach in influencing preparers might be judged by the answer to two questions: (1) Have preparers been encouraged to recommend positions which are more compliant? and (2) Have there been any other effects of increased sanctions on the functioning of professional preparers in the tax system? These two questions will be addressed briefly here.

---

[5] See Prop. Amendment to Circular 230 and Prop. Treas. Reg. Sec. 10.34.

Penalties and compliant recommendations

The difficulty with examining the compliant nature of positions recommended by professional preparers was addressed previously. Even if this problem could be solved, observing and comparing actual decisions by professionals before and after the adoption of a new penalty is experimentally impossible. Rather than asking if preparers' recommendations are more compliant as a result of the economic sanctions, an easier question might be whether professionals perceive that economic penalties have changed the positions that they recommended, or whether the economic penalties are salient to preparers when making recommendations.

Three studies are relevant in answering these questions. In an analysis of data taken from the IRS's Survey of Practitioners [Jackson et al., 1988], it was suggested that penalties are viewed quite seriously by all types of preparers. It was interesting to note, however, that the three groups used in the study differed when asked how effective such penalties were. The most expert group thought them to be slightly less effective than did the least expert group. In a laboratory experiment using tax professionals, McGill [1988a] demonstrated that penalties might have the strongest effect on those who tend to react to external controls in general.

It has also been shown that the least expert tax preparer group (1) believes most strongly in the deterrent ability of penalties [IRS, 1987] and (2) serves clients who have relatively less complex returns with potentially fewer ambiguous situations and who are most concerned with the accuracy of their return. It is paradoxical that penalties intended to deter overaggressiveness might be most effective on this group.

In the only examination to date of the direct influence of penalties on preparers, O'Neil and Collins [1989] asked small-firm preparers about the changes that the threat of penalties may have brought about in their practices. They found that 59% of their subjects agreed that penalties had decreased the number of aggressive positions taken on returns at least to some extent.

The current research empirically examines the effect of economic sanctions on the aggressiveness of positions recommended by professional preparers. Unlike in previous studies, the effects are directly observable in a laboratory setting and any differential effects of sanctions across preparer types can be captured.

Other effects of economic sanctions

The second question suggested above is how to evaluate the success of the economic approach of influencing professional preparers. This question involves analyzing the existence of any unanticipated effects that penalties may have on preparers and/or taxpayers. As alluded to earlier, it seems that increased penalties may have caused increased tension and hostilities on the part of preparers. It is sometimes suggested by preparers that "The IRS is using the tools of preparer penalties and sanctions in an attempt to shift the role of tax practitioners from the traditional role of client advocate toward one of government agent" [Jackson and Milliron, 1987]. Many preparers, however, do not see this role as appropriate [Coyne, 1987].

The IRS has recently revised the existing penalty structure, doing away with certain compound penalties and simplifying others. This revision resulted from the IRS and Congress recognizing the perilous situation in which both taxpayers and practitioners find themselves when trying to understand and cope with the numerous penalties, and the difficulty in administering them fairly and consistently. The current system is intended to establish a three-tiered penalty structure based on (1) reasonable care or failure to make disclosure of positions which lack substantial authority, (2) misconduct which is intentional or willful and (3) fraud [IRS, 1989].

Even such a simplification is not seen by all as relieving the tensions that underlie the current system. As one writer put it, the penalty system is a reflection of the

> frequent suspicious and cynical approach taken by both the IRS and the courts and their readiness to perceive any efforts to minimize taxes as the result of some sinister motive. . . The taking of

> even an 'aggressive' (but not fraudulent) position is consistent with our economic values and interests, and to excessively penalize or threaten such a position when it fails to be sustained clashes with our Risk-Reward value and precludes alignment between our tax system and values otherwise common to our culture. [Bernsley, 1989, p. 104]

It is possible that tensions or hostilities on the part of any of the parties involved may cause penalty threats to result in unintended consequences if used as an influence attempt.

The Research Questions

It appears difficult to determine the success of using threats of economic sanctions to encourage the desired behavior of professional tax preparers. The first research question addressed here will be this: What effect will sanctions have on the aggressiveness of recommendations made by preparers to their clients?

It is possible that such threats may result in other unanticipated consequences in addition to any effect they may have on preparer aggressiveness. Agency models used in the area of tax compliance and tax preparer research (e.g., Reinganum and Wilde, 1988), as well as those used in more traditional principal-agent work [e.g., Ross, 1973; Holmstrom, 1979], suggest that economic sanctions which increase the preparer's cost of providing his services may effect the level of those services offered. This line of research will be reviewed in Chapter 2. The second research question will be this: Do economic sanctions have an effect on the level of effort exerted by professional preparers when advising clients and preparing tax returns? Finally, the diversity of the tax preparation industry suggests that effects may not be consistent for all types of preparers. The third research question will be this: Do sanction threats have different effects on different preparer groups?

Chapter 2 will examine the prior research relevant to the above questions. As much tax preparer research is an extension of taxpayer compliance research, some related taxpayer compliance research will also be discussed. Both economic and non-economic approaches will be reviewed, as well as a psychological approach not previously applied to taxpayer or preparer research. In Chapter 3, a theoretical model of the preparer is offered which integrates principles from both economic and non-economic domains and recognizes the differences across preparer types. Several specific hypotheses are generated. Chapter 4 describes the research design and methodology used to test the hypotheses. Chapter 5 describes the results of the experiment. A summary of the dissertation and the implications are presented in Chapter 6.

CHAPTER 2
DEVELOPMENT OF RESEARCH

Introduction

Actual research to date involving preparers can be thought of as addressing three broad questions: (1) what factors influence the taxpayer's decision to engage a preparer [Slemrod and Sorum, 1984; Slemrod, 1985; Long and Caudill, 1987]; (2) what services are provided by the preparer [Yankelovich et al., 1984; IRS, 1988; Collins et al., 1988]; and (3) what is the influence of preparers on the compliance decision [Mazur and Nagin, 1987]. The decision to engage a preparer and the services provided by preparers were discussed briefly in Chapter 1. The most commonly addressed issue, however, is the relationship between preparers and tax compliance. Most preparer compliance research may be viewed as an extension of the work done on taxpayer compliance. For that reason, the previous work done on taxpayer compliance will be reviewed here also.

Taxpayer Compliance

Taxpayer compliance has been viewed from a number of theoretical perspectives. The three most common are deterrence theory, economic deterrence models and fiscal psychology. The work done using each of these approaches is summarized below.

Deterrence Theory

Noncompliance, as originally considered in the literature, was illegal tax evasion. Accordingly, the area of criminal justice was a logical place to start examining the issue, with deterrence theory being an appropriate domain. Deterrence theory is concerned with the effects of actual sanctions and the threat of sanctions on criminal or undesirable behavior. The basic idea is that people try to maximize their rewards and minimize their costs. If sanctions are probable enough and the costs severe enough to outweigh the rewards of an act, the act will not be performed.

While such a relationship between sanction and actions was assumed by the general public and legal professionals, no underlying theory seemed to exist. Academics generally questioned the underlying propositions that were most often espoused [Goode, 1972; Cohen, 1966]. As Tittle [1980, p. 1] stated, "The fundamental premise of criminal justice is that people fear punishment and will obey the law if it provides a sufficient sanction threat." However, to be characterized as a theory, more is needed than to be able to postulate relationships. "The deterrence problem really consists of three parts: identifying sanctions or sanction threats in a meaningful way, determining how much and what kind of effect they have on deviance, and specifying the mechanisms by which the effect occurs" [Tittle, 1980, p. 5].

In spite of several theoretical and methodological shortcomings, findings in early deterrence research were fairly consistent. The certainty of sanctions being imposed, but not necessarily their severity, is inversely related to the crime rate [Erickson and Gibbs, 1976].

Much of this early work was done on a macro level, using crime statistics, arrest rates, prison records, etc. across legal jurisdictions. Because of the methodologies involved, however, researchers were unable to rule out specific competing hypotheses. For instance, while a fear of sanctions may be one possible explanation for finding hypothesized relationships, deviance may also be curtailed by sanctions due to individual offenders being incapacitated. In other words, it may be a lack of opportunity due to sanctions, rather than a fear of sanctions, which prevents the illegal act from being performed [Erickson and Gibbs, 1976]. Another such competing hypothesis is that those individuals who feel most strongly about the behavior may also be those individuals who perceive the sanctions to be strongest. Asking subjects about potential sanction threats and their own behavior in a macro level study then could merely uncover spurious correlations involving attitudes about the behaviors being studied [Tittle, 1980].

Other issues in deterrence research have to do with the relative effects of severity versus certainty [Logan, 1972; Grasmick and Bryjak, 1980], informal sanctions versus formal sanctions [Tittle, 1980; Anderson et al. 1977; Kraut, 1976], the method of communicating the sanction threat, the type of norms involved, socioeconomic and personality variables, peer influences and perceived fairness of the rules. Many of these factors are ignored in the early models of tax compliance. They were either assumed to be irrelevant, too difficult to capture and/or measure, or not under the direct control of authorities and therefore uninteresting.

Economic Deterrence

Tax compliance offered researchers an opportunity to solve some of the problems associated with general deterrence research. For instance, while a basic utilitarian approach was at the heart of all deterrence research, measures of rewards and costs were often unavailable. However, tax compliance allows for the objective measurement of sanctions in monetary terms and expected utility maximization becomes the mechanism by which potential sanctions operate.

Not only does the tax setting allow for quantification of sanctions, but it can explicitly include in the analysis another important variable missing from most other deterrence research--the benefit derived from the deviant behavior. One might argue that there would be no undesired behavior if there were no benefits to be derived by the actor. In the tax setting, the tax savings benefit can be easily identified and quantified.

The traditional model

The expected utility model assumes actors who conform to a set of von Neumann-Morgenstern [1944] utility functions. Becker [1968] applied this model to illegal behavior in general, describing the problem of enforcement as one of optimal resource allocation. While all crimes involve some benefit to the offender, white-collar crimes conveniently involve benefits measurable in constant and generalizable units. As Becker describes it, crime can be looked at as an "industry" where market participants may act to optimize their utility, and a crime will be committed if the expected utility exceeds the utility that could be derived from devoting energies elsewhere. In the tax setting, the costs and benefits of the crime can be easily identified and quantified so that an optimal enforcement strategy can be derived.

In the traditional economic view of tax compliance, as applied by Allingham and Sandmo [1972] and Srinivasan [1973], the evasion decision is seen as a purely economic decision. A rational taxpayer chooses among combinations of a riskless asset--reported income--and a risky asset--unreported income--so as to maximize his after-tax income. The ultimate decision of the amount of risky asset to purchase (i.e. the degree of noncompliance) is determined solely by the probability of detection and the penalty structure, which are both exogenously determined, and the individualistic risk attitudes of the taxpayer. As the expected cost rises, noncompliance should decrease. Expected utility maximization is the operative paradigm. Since utility functions are individualistic, other non-pecuniary factors which might affect the taxpayer's utility function, and therefore compliance, were originally ignored. The difficulty in measuring and quantifying such factors, as well as the difficulty in observing them consistently in aggregate, macro level data prevented their inclusion in early empirical works.

Consistent with deterrence theory, it has been shown analytically that noncompliance should decrease as either the probability of detection or the penalty increase [Allingham and Sandmo, 1972; Srinivasan, 1973]. These findings are also supported in subsequent empirical work [e.g., Witte and Woodbury, 1985; Friedland et al., 1978; Christiansen, 1980].

The same economic model can also be used to predict the effects of other factors on taxpayer compliance. Factors which have been examined include true income [Allingham and Sandmo, 1972; Mork, 1975], the relative effects of the severity and the certainty of penalty [Christiansen, 1980; Friedland et al., 1978], marginal tax rates [Allingham and Sandmo, 1972; Yitzhaki, 1974; Christiansen, 1980; Clotfelter, 1983; Koskella, 1983], and the progressivity of the tax [Srinivasan, 1973].

Interactive models

One criticism of early economic models was that they took some parameters such as the probability of detection as exogenous when, in fact, they may be determined endogenously. This could have had the effect of making early models misspecified. For example, it was customarily assumed that the audit rate was exogenously determined, and the compliance decision made in response to it. If the probability of detection is not exogenous, but rather determined by the government based on the level of reported income, any model ignoring this endogeneity would be misspecified.

Dubin and Wilde [1988], using an instrumental variables approach and regressing audit probabilities on the IRS regional budgets, find that audit rates are in fact endogenous in at least some audit categories. However, the probability of audit is still positively correlated with compliance even after allowing for the IRS as a strategic actor in the process. While not specifically incorporating the preparer, Dubin and Wilde point out the possibility that there may be others involved in the tax reporting environment whose actions will have a bearing on compliance.

Two approaches--a general equilibrium model and a principal-agent framework--have been used to model the interaction of taxpayers and the government. In a general equilibrium model the IRS and taxpayers simultaneously set audit rates and compliance levels in response to each other [Graetz, Reinganum and Wilde, 1986; Reinganum and Wilde, 1986]. In the principal-agent model the IRS pre-commits to an optimum audit strategy in order to encourage compliance [Townsend, 1979; Baron and Besanko, 1984; Border and Sobel, 1987; Reinganum and Wilde, 1985].

The game-theoretic approach

Using a game-theoretic approach, it is found that the level of fines are still positively related to compliance [Graetz, Reinganum and Wilde, 1986]. This is consistent with the more traditional models. Within a given audit class, it is also shown that the expected marginal benefit to the taxing authority of auditing increases as total reported income decreases [Reinganum and Wilde, 1986; Scotchmer, 1987]. Reporting higher income therefore should result in a lower probability of audit. Within a single audit class unreported income should decline as true income rises since the likelihood of audit will also increase. Scotchmer [1987] notes that the inclination to audit those reporting lower income within an audit class can result in a "regressive bias" in effective tax rates, with those with lower incomes paying greater effective taxes due to higher expected penalties.

Agency models

The agency framework differs from the above equilibrium models in that the government (i.e. the principal) does not set audit rates in response to compliance levels but instead precommits to an audit strategy in order to encourage maximum compliance. For instance, Reinganum and Wilde [1985] look at the taxpayer as an agent of the government who has private knowledge of his own income. The government, however, cannot observe actual income without costly investigation. They show that, under certain assumptions, the use of a cut-off auditing strategy will weakly dominate a random audit strategy in that it will induce truthful reporting by taxpayers at the least cost to the government. In addition to the desirable effect on compliance, such a strategy would enhance horizontal equity ex post over random auditing since those with equal incomes will be audited with equal certainty. Perhaps most interestingly, the level of fines becomes irrelevant as only those reporting truthfully will be audited.

Fiscal Psychology

Recently, a great deal of attention has also been given to the effects of attitudes and perceptions of taxpayers on compliance. Referred to collectively as fiscal psychology, this line of research is often viewed in terms of its relationship to the economic models described above but from two, slightly different perspectives. First, some suggest that the attitudes and perceptions of economic actors will act as moderating variables between economic stimuli and economic results. Without an understanding of how individuals actually view their environment their reactions cannot be predicted with any accuracy. As described by Schmolders in his seminal piece, "The main task of fiscal psychology remains to analyze the direct resistance to direct taxation of individuals and nations according to their general 'tax mentality'" [Schmolders, 1959, p. 341].

Alternatively, some may suggest that fiscal psychology variables actually provide the motivation for noncompliance. Recall it was suggested that economic models, by allowing for the quantification of the benefits of noncompliance, might add the motivation for deviant behavior that general deterrence models lack. However, Lewis [1982a, 1982b] disagrees. He argues that in an economic model such as the one described by Allingham and Sandmo, tax evasion behavior is still assumed and will only be deterred by sufficient chances of detection and fines.

> Thus the causes of tax evasion are not really pursued; the model is concerned with assumptions about behavior and constraints upon it. To the social psychologist this is unlikely to do; preferring to assess attitudes towards tax evasion, the way such attitudes are formed, and how attitudes affect behavior. [1982b, p. 75]
>
> The proponents of behavior therapy have often been accused of treating symptoms and not causes. The same can be said of tax policies aimed at reducing tax evasion by increasing fines or the likelihood of detection of evaders. They are attempts to manipulate behavior without discovering how and why that behavior came about. Not only are they incomplete as explanations but treatment or tax policy directed only at curtailing symptoms may also be less effective (and may even have negative consequences) in the long run. [1982a, p.127]

Others seem to totally dismiss the economic model of compliance in favor of a pure fiscal psychology approach. For instance, Dean et al. claim they

> ... are not totally free from preconceptions, but seeing the taxpayer as a highly rational economic automaton is not one of them...We do believe, however, that expressed attitudes, whether founded in ignorance or not, are a more important influence on taxpayers' behavior than the attitudes that taxpayers might have had, had they been rational economic men. In short we are more interested in taxpayers' ideas and myths concerning taxation than we are in economists' myths about taxpayers. [1980, p. 30]

In any case, the issues of the perceived legality or morality of evasion, effects of interpersonal sanctions, and perceptions of peer compliance and fairness of the tax laws all become important in predicting the individual's compliance behavior. Jackson and Milliron [1986] provide an extensive review of the research concerning the effects of various socio-economic, demographic and attitudinal variables on compliance. As such, only those with relevance to the proposed research will be discussed here. Some general comments about the research and methodologies employed will follow.

Various demographic variables

A host of demographic variables have been tested for their effects on compliance, with few consistent findings. Two exceptions are age and sex. Older taxpayers are relatively more compliant than their younger counterparts [Tittle, 1980; Vogel, 1974; Mason and Calvin, 1978; Clotfelter, 1983], and females are relatively more compliant than males [Tittle, 1980; Vogel, 1974; Mason and Calvin, 1978].

Perceived morality of noncompliance

It is reasonable to believe that the perceived seriousness of tax noncompliance, and the norms of behavior held by taxpayers will affect the extent of noncompliance found in the population. This factor has been referred to by a number of different names and operationalized in a host of different means, making any comparisons across studies difficult.

In one of the earliest national surveys of tax compliance, Vogel [1974] found that 80 to 90 percent of the respondents felt illegal tax evasion was a serious problem because it resulted in increased taxes and reduced government revenues. However, nearly the same number defended the action on the basis of its frequency, gaps in the collection process and the heavy tax burden. As the author put it, "The large percentage actually [cheating] demonstrates the breakdown of the public sense of justice in this area". [p. 512].

Song and Yarbrough [1978] attempted to measure tax ethics by analyzing subjects' responses to seven questions regarding illegal evasion. After converting the responses to a 100 point scale, the average score was a 60.4, interpreted by the authors as "barely passing". While it was believed to be useless to ask subjects about their own evasion behavior, subjects' tax ethics scores were found to be significantly and negatively related to the degree of suspicion that others violate tax laws.

More recently, Yankelovich et al. [1984], in a national survey of U.S. taxpayers, used a 15 question measure to reflect a variety of endorsements of tax cheating. They found that one-third of the taxpayers surveyed strongly endorse such cheating.

Note that none of the surveys above linked attitudes about tax ethics directly to evasion behavior. The relationship between the perceived morality of evasion and evasion behavior has been demonstrated in laboratory studies however. Kaplan and Reckers [1985], for instance, show that the evasion intention of subjects given particular tax reporting scenarios was significantly affected by their personal beliefs regarding the morality of evasion.

Effects of "informal" sanctions

Closely related to tax ethics is the idea that other sanctions besides economic penalties may serve to deter deviant behavior. These sanctions include guilt feelings imposed by the actor on himself and disapproval of the actor by relevant others if the act is discovered. A number of studies indicate that informal sanctions may be as effective, if not more effective, than formal sanctions in deterring tax evasion.

In one of the earliest and most-often quoted studies of its kind, Schwartz and Orleans [1967] tested to see whether formal sanctions or "appeals to conscience" were more effective deterrents for potential tax evaders. Two groups were given different questionnaires between two actual tax return filings. One questionnaire prompted formal sanction threats while the second prompted moral appeals to conscience. While the sanction group showed an increase in reported AGI and tax liabilities, the increase was not as great as that shown by the conscience group. The authors concluded that while formal sanctions were indeed effective, appeals to conscience were more so. Similar results are found by other researchers such as Tittle [1980], who found that when sanctions are defined as "interpersonal" sanctions they were the strongest determinant in subjects' evasion intentions.

Effects of perceived fairness

Fairness in the tax law can be described in at least three ways: horizontal equity, vertical equity and equality of exchange with the government (i.e. benefits received by a taxpayer in terms of services are equitable given the amount of taxes paid). Since these dimensions of fairness are not always examined individually however, they will be discussed together.

As might be expected, taxpayers generally feel that the tax laws are unfair. For instance, Song and Yarbrough [1978] found that taxpayers ranked the federal income tax behind sales taxes, property taxes and state income taxes in terms of fairness. Dean et al. [1980] found that 62% of their subjects felt the general level of tax was "much too high", while 94% said that it was at least "a little too high".

Whether on not these feelings result in noncompliance, however, is uncertain. Dean et al. [1980] found that people believed the level of taxes (perhaps a reflection of the lack of equity in the exchange between the taxpayer and the government) and a perceived lack of fairness were the major causes of tax evasion. Milliron and Toy [1988], however, used the same variables to explain both evasion and perceived fairness. They found that they could explain 52% of the variance in fairness perceptions, but only 28% of the variance in evasion decisions. This suggests that while perceptions of fairness may be low, they may not necessarily result in noncompliance. Lewis [1979], Vogel [1974] and Mason and Calvin [1978] all found no evidence that a measure of fairness in the taxpayer-government exchange was related to attitudes about evasion or actual behavior, while Spicer and Lundstedt [1976] found it significantly related to both. Finally it should be noted that even if perceived fairness was found to be related to either attitudes toward tax evasion or self-reported prior evasion, it would still not be conclusive whether the perceptions regarding equity were actually causing evasion behavior or were simply rationalizations for it.

General comments regarding fiscal psychology

While fiscal psychology offers a different and insightful view of compliance, two concerns must be considered. The first has to do with the fact that much of the research deals with the measurement of attitudes rather than actual behavior. While this may sometimes be necessary with a sensitive subject like tax evasion, there is a missing link between attitudes and actions. Until this link is made, any inferences from this line of research will be difficult to make.

Relatedly, reliance on direct responses is difficult when people are asked about specific behavior. Due to the nature of the subject, respondents may react in different ways to the social interaction in which responses are given. Surprisingly, it has been shown that not only will evaders not confess, but compliers may actually boast about actions not taken. For instance, Elffers et al. [1987] were able to identify a group of actual evaders through the taxing authorities in The Netherlands. They found that one group of attitudinal variables called "personal instigation" variables were correlated with verifiable evasion, but not with self-reports of evasion. Another set of "personal constraint measures" were correlated with self-reports but not with verifiable behavior. Self-reports and actual behavior were uncorrelated with both evaders and compliers giving inaccurate self-reports. The present research attempts to examine not only attitudes and perceptions but their direct effects on behavior.

Economic versus Non-economic Factors

While a number of non-economic factors may affect compliance, it seems important to know how effective they are relative to economic factors. Whether one takes the view that psychological factors are mediators of economic stimuli or motivators of behavior which may themselves be moderated by economic variables, their relative strength becomes an interesting issue.

Several studies indirectly test the relative strength of economic and non-economic factors mostly finding economic factors to be weaker determinants of evasion behavior [Schwartz and Orleans, 1967; Tittle, 1980]. Milliron and Toy [1988] included a set of variables from both models in a survey. They found that a hypothetical tax system comprised of factors suggested by fiscal psychology, including reduced tax rates and a simpler and flatter tax, is preferred to a system emphasizing economic deterrents such as increased penalties, higher probabilities of detection and higher tax rates to reduce evasion.

While these studies include both economic and non-economic variables in the same analysis, they fail to truly integrate the two. While in some settings one factor may dominate another, pitting the two against each other as alternative hypotheses does not give either its deserved accord, nor does it allow the investigation of potential interactions when individuals are faced with both, possibly conflicting, motives. Each perspective, however, does have the ability to address areas which are neglected by the other. It appears that any major advancement in the area of tax compliance might be dependent on the ability to understand how noneconomic factors react with economic factors to influence individual behavior. The present research attempts to integrate aspects of both classical economic theory and psychological research to create a more complete and descriptive model of the preparer.

Preparer Research

In the previous section, some theoretical and empirical background of tax compliance research was discussed. Preparer research can be categorized along two of the same dimensions and thought of as extensions of the economic and attitudinal work in taxpayer compliance. In this section, the research directly related to professional preparers and the present research will be discussed.

A number of studies have attempted to examine the effects of preparers on compliance by looking at the relationship between preparer use and reported liabilities [Long and Caudill, 1987], the relationship between preparer use and identified audit adjustments [IRS, 1985; Smith and Kinsey, 1987] and the relationship between taxpayers' self-reported evasion and preparer use [Collins et al., 1988]. Many of these studies and their results were discussed in Chapter 1. While examining possible relationships, none of this research offers a model of the preparer which might explain the relationships. As alluded to earlier, research which merely describes or identifies relationships does not constitute a theory. The following sections describe recent research which attempts to explain the impact professional preparers may have on compliance by advancing more comprehensive models of the preparer and identifying mechanisms through which this influence may work. Such models are a necessary first step to developing a theory and being able to hypothesize what effects a change in the status quo might have on this relationship.

Economic Models of the Preparer

While the preparer could be considered the main actor in the tax reporting process, it seems more appropriate in economic models of compliance to consider him as an agent of the taxpayer who aids in the taxpayer's compliance decision. As such, the principal-agent framework seems especially suited to examine the issue. The tax preparer models described below can be classified as economic models in that they are based on assumptions of rational, utility-maximizing decision makers involving the preparer in some way as an agent of the taxpayer.

Reinganum and Wilde [1988] include the taxing authority, the taxpayer and the preparer in their model. The taxing authority, whose goal is to maximize revenues, responds to the reports of taxpayers by setting an optimal audit strategy. The taxpayer seeks to maximize after-tax income by reporting some level of earnings which may be less than true earnings. The taxpayer is subject to a penalty rate based on the unreported income. He also faces costs of preparing the return and potential costs in addition to fines and penalties if the return is audited. The preparer seeks to maximize net profits which are based on the fee charged to clients, the costs of preparation and the potential costs incurred if a return prepared by him is audited.

The preparer provides representation for taxpayers before the IRS and therefore offers some protection against audit costs. It is shown that the amount of income reported will depend on who controls the final reporting decision. Because the amount which would be reported by the taxpayer increases with an increase in the perceived costs of an audit, and since the use of a preparer can shield the taxpayer from these costs, using a preparer resulted in less income being reported so long as the taxpayer controls the final reporting decision. If the preparer controls the final reporting decision, two equilibria are possible. Since the preparer's profit will decrease as the probability of audit increases, and the probability of audit increases as reported income decreases, the amount of income reported could rise if a preparer is used. On the other hand, the taxpayer may compensate the preparer for the risk involved in reporting low incomes. Therefore, the preparer may either charge a higher fee to compensate him for the additional risk associated with reporting lower income, or he may charge a lower fee and report a higher amount of income.

The above model deals explicitly with tax evasion. However the same principles could be extended to the level of aggressiveness exhibited in ambiguous situations. Ayers et al. [1987] invoke an agency perspective in examining preparers' interpretations of the tax status of certain ambiguous items. They ask preparers to evaluate the deductibility (taxability) of certain expenditures (receipts) but change the context of the decision across subjects. In one context, subjects are told that they are making the decision in relation to their own tax return; in a second, the decision is being made for a client's return; and in a third, they are asked to evaluate relevant "substantial authority." If, as Reinganum and Wilde suggest, higher incomes are reported when a preparer controls the final reporting decision than when it is controlled by the taxpayer, and if preparers have the same utility functions as other taxpayers in filing their own returns, then it seems that preparers would choose more aggressive positions on their own returns than they would recommend to clients.

The results reported by Ayers et al. support the agency perspective for subjects who are CPAs. Non-CPA preparers, however, actually recommended more aggressive positions to clients than they would take on their own returns. Another interesting finding was that both CPAs and non-CPAs recommended reporting positions consistent with their evaluations of substantial authority. While this might seem to be a very predictable result if the context manipulation were within subjects, it may be more credible in the between-subjects manipulation used by Ayers et al. and suggests that preparers do not see themselves as being overly aggressive or unreasonable in advising their clients. Of course, the results could also simply be due to the manipulated variable not being salient across subjects.

Klepper and Nagin [1987], Klepper et al. [1988] and Mazur and Nagin [1987] advance another model of the preparer which explicitly deals with compliance and aggressiveness separately. This might be called the enforcer/exploiter model. They describe the preparer as being similar to an investment advisor who informs taxpayers of possible risk-return combinations available to them, except that the use of a preparer may limit the use of certain options which would otherwise be available.

In this model, taxpayers are endowed with two types of income--ambiguous and unambiguous. They face penalties for underreporting income with penalties related to underreported unambiguous income being greater as there is greater culpability associated with unambiguous income. Since ambiguous items are open to different interpretations, underreporting of these items may be due to honest differences of opinion and are not subject to as severe a penalty.

By reducing taxpayer culpability, preparers in this model serve to reduce the severity of penalties to which taxpayers are subject and therefore increase their after-tax income. However, preparers themselves are subject to penalties and must be compensated by taxpayers for reporting risky positions. It is assumed that the reduction in expected taxpayer penalties achieved by engaging a preparer is greater than the compensation paid to preparers for incurring the increased risk. However, preparers cannot reduce the penalties associated with unambiguous items since they are not subject to varying interpretations. Preparers then can be expected to enhance compliance for unambiguous items but exploit ambiguous aspects of the law.

The authors empirically test their model by constructing a measure of ambiguity for each line item on the tax return. Using TCMP data, they find that differences between the voluntary reporting percentages of self-prepared and paid-preparer returns are related to the relative ambiguity of each line item with the relationship in the hypothesized direction. The authors fail to consider, however, that there may be inherent differences between the type of returns prepared by third parties and self-prepared returns. If there are differences in ambiguity or complexity beyond what is captured by their measures, the differences in the voluntary reporting percentages may be due to these inherent differences and not to the use of preparers.

Scotchmer [1989] deals specifically with the effects of penalties on taxpayers and preparers. Her model is similar to that of Reinganum and Wilde except that the taxpayer is unsure of his true tax liability and has the option of "guessing" or hiring an advisor. This decision is based on the relative ex ante expected utility of each option. She shows that if advice were costless and there were no preparer penalties, the taxpayer would be better off by using a preparer since the risk he faces would be reduced. However, if taxpayers are reporting at or above the mean of their income distribution, retaining a preparer will result in lower total tax revenues since penalties are asymmetric (i.e., penalties are assessed for underpayments but there are no "rewards" paid to taxpayers for overpayments).

Due to legal responsibilities and professional codes of ethics, preparers do not cheat but are "prevented from taking entirely riskless tax positions" by their "duty to act in the interest of the client" [Scotchmer, 1989, p. 190] They balance their legal obligations with market forces by permitting underreporting but demanding compensation for bearing the risk of penalties. Penalties then have three effects. First, they discourage aggressiveness by those taxpayers retaining preparers by increasing taxpayers' compound penalty (their own penalty plus the additional compensation required by preparers). Second, they discourage the retention of preparers due to the preparers' higher cost. Reduced preparer use also results in higher effective taxes as discussed above. Third, they serve as a quality assurance mechanism. While taxpayers may be unable to judge the quality of preparers until it is too late and they are audited, penalties will serve to drive low-quality preparers who are frequently penalized from the market.

As discussed in Chapter 1, O'Neil and Collins [1989] found that small-firm preparers adhered to the predictions of these economic models. These preparers admitted to recommending fewer aggressive reporting decisions in response to increasing preparer penalties. Likewise, Milliron [1987] found that CPA subjects felt that preparer penalties were one of the most important factors influencing their recommendations to clients. However, in laboratory experiments Kaplan et al. [1988] and Duncan et al. [1989] both found that manipulating the probability of audit did not affect professional preparers' recommended reporting positions regarding tax shelter items.

Previous Attitudinal Research on Preparers

Another line of research has concentrated on the attitudes and perceptions of preparers and what effects these attitudes and perceptions might have on their decisions when advising clients. This line of research is predominately state-descriptive and consists mostly of attitudes and perceptions collected in various preparer interviews and surveys. As in taxpayer compliance research, these attitudes can be viewed as moderating variables between economic stimuli and response or as the primary cause of preparer action which itself can be moderated by economic factors. Either way, however, it appears that it is the interaction of these variables which will prove to be most important to the researcher. This interaction will be explored in depth in this research project.

The relevant factors which have been examined can be classified as (1) demographic and motivational client characteristics, (2) attitudes of the tax preparer toward the IRS and his responsibilities to the tax system and (3) decision context features [Jackson and Milliron, 1987]. While the distinction among these categories may not always be clear, the classification facilitates discussion of the factors.

Client characteristics

Different preparer types have been found to serve markedly different client bases [Kinsey, 1987b; Coyne, 1987]. For example, large public accounting firms serve wealthier individuals with complicated financial situations and larger businesses while clients of commercial tax services tend to be primarily individuals with wage and salary income. With the different client bases come different client expectations. As discussed earlier, most individuals expressed accuracy and safety as their primary concerns when filing their tax returns. This view is held by most clients of commercial services [Jackson and Milliron, 1987; Coyne, 1987]. These taxpayers are more likely to see the preparer as an agent of the government rather than as an advocate [Westat, 1980, p. 55], and are more likely to defer to the preparer's judgement. However, larger accounting firms believe that their clients expect a degree of tax savings and aggressiveness from them. These clients are willing to pay for the risk involved in reporting aggressive positions and may be willing to change preparers to obtain it [Jackson and Milliron, 1987; Coyne, 1987]. Note that these two extremes bear a similarity to the two possible equilibria described by Reinganum and Wilde in their agency model. These client attitudes were obtained from preparers, however, rather than directly from clients, and are actually preparers' perceptions of client attitudes. Hite and McGill [1989], surveying taxpayers directly, suggest that even clients of large CPA firms may desire less aggressive advice.

Practitioner attitudes

It is widely accepted and documented that most preparers see themselves as client advocates [Westat, 1980; Kinsey, 1987b; Coyne, 1987]. They represent their clients in what might sometimes be seen as an adversarial confrontation with the government. This view is reinforced when preparers also represent their clients in audits and other face-to-face proceedings with the IRS [Coyne, 1987; Kinsey, 1987a]. In a recent survey, preparers representing 76 percent of all professionally prepared returns indicated that they would "resolve all questionable items on a return that have a reasonable basis in favor of the client" [Westat, 1987]. However, this advocacy view is not equally shared by all preparers. Those serving low-income taxpayers express greater government loyalty and do not see themselves as strong client advocates which is consistent with their clients' attitudes toward them [Westat, 1980; Coyne, 1987; IRS, 1987]. Based on these attitudes and the statement regarding the resolution of questionable items, it is reasonable to believe that the decisions made by preparers in the compliance process may vary based on the degree of loyalty felt toward the client.

It should be noted that the apparent consistency between preparers own role prescriptions and client expectations of preparers discussed earlier may give rise to an identification problem. While it may be important to determine which one of these factors, if either, might drive preparers' behavior, the two effects are difficult to separate. For example, Duncan et al. [1989] found CPAs to moderate the aggressiveness of clients. However, it appears subjects in that study were also told that the hypothetical client believed the potential tax shelter deduction was questionable. Given that an aggressive client himself questioned the legality of the deduction, its inappropriateness may have been highlighted. That is, the combination of the client's aggressiveness with his concern over the deduction may have provided the subject with diagnostic evidence as to the appropriateness of the deduction in addition to the effect of the client's attitude. It might appear that the preparer curbed the aggressiveness of the client, suggesting it may be the preparer's attitude rather than the client's attitude which is more important in determining the aggressiveness of decisions. However, it may have been the interaction of client attitudes and client representations that caused the observed results. Milliron [1987], however, asked preparers directly what influences them. She reports evidence that the client's attitude toward risk is the single most important determinant of the aggressiveness of a position that a preparer takes.

A second set of preparer attitudes of interest is that related to preparer penalties. It has been suggested that preparers who believe in the deterrence value of sanctions are less likely to recommend aggressive positions [McGill, 1990]. Such beliefs, however, may not be widespread. Some believe that such sanctions add costs to the preparation process while resulting in no substantive change in how tax practice is conducted [Coyne, 1987]. CPAs generally feel that such penalties are ineffective [Milliron and Toy, 1988; Coyne, 1987].

As with taxpayer compliance, the ultimate question is whether differences in attitudes cause any differences in compliance levels. If not, then it is inconsequential that preparers feel different responsibilities toward clients or see themselves as filling different roles within the system. As stated earlier, most preparer research in this area has been state-descriptive interviews and surveys. Those studies which attempt to test the effect of preparers on compliance have been conflicting and inconclusive.

Decision context

This category includes most of the factors mentioned in the economic models described earlier including audit probabilities, the IRS' position on an item, and the degree of ambiguity. The most consistent finding is that the ambiguity surrounding an item will effect the position recommended by the practitioner [Beck et al., 1988; Klepper and Nagin, 1987; Scotchmer, 1985].

The Theory of Psychological Reactance

The theory of psychological reactance is concerned with the motivational consequences related to threats to, or losses of, freedoms [Brehm and Brehm, 1981]. In general, the theory suggests that a person who is faced with a threat to, or loss of, freedom will be motivated to restore that freedom. This may be manifested in a variety of ways, one of which is to actually exercise the freedom threatened. The theory predicts that under certain conditions influence attempts can cause people to react in the opposite manner to that intended by the influencing party so that compliance is actually lower than before the influence attempt.

Responses consistent with reactance theory have been observed empirically many times with a variety of subjects and in different situations. For example, threats examined have ranged from mere expressions of another's opinion [e.g., Brehm and Sensenig, 1966] to the passage of restrictive legislation [Mazis, 1975; Mazis, Settle and Leslie, 1973] and monetary penalties [Heilmann and Toffler, 1976]. Freedoms have ranged from the measurement of taste preferences [Goldman and Wallis, 1979; Reizenstein, 1971] to evaluations of detailed administrative proposals relevant to student subjects [Petty and Cacioppo, 1979; Biondo and Macdonald, 1971] to weighing legal evidence as a juror [Sue, Smith and Caldwell, 1973; Wolf and Montgomery, 1977]. Those seen as potentially subject to reactance arousal range from young children [e.g. Goldberg and Lewis, 1969; Brehm and Weinraub, 1977] to professional administrators evaluating fair employment practices [Rosen and Mericle, 1979]. Before discussing the conditions necessary to arouse reactance, a few issues will be addressed.

First, reactance may be manifested in ways other than actually exercising the threatened freedom. As explained below, very low levels of reactance may result in no reaction at all. Higher levels may lead to attitude changes but no behavioral responses. Extreme threats or losses of freedoms may be so severe as to prohibit behavioral responses altogether. Even if behavioral responses are warranted, the response may merely be in the form of reduced compliance (as compared to a no reactance setting) but with still more compliance occurring than in the absence of a threat. Only when the magnitude of reactance is increased to such a degree that the reactance forces are stronger than the compliance forces will there be a negative change away from the behavior being advocated. This effect is referred to as a boomerang effect [Brehm and Brehm, 1981].

Secondly, reactance theory deals only with the protection of existing freedoms. It does not suggest motivations to expand the set of existing freedoms, or how or why those freedoms are originally obtained. People are merely seen as motivated to protect that which they already possess.

Thirdly, the theory does not suggest that people will not give up freedoms, as freedoms are relinquished all the time. Relinquishment may be done by choice (which itself may cause a degree of reactance), or when the cost of exercising the freedom outweighs the benefits of retaining it.

Finally, as suggested above, reactance theory does not discount the importance of coercion (economic or otherwise). It merely suggests that there are other concerns which may be more important than the cost of not complying.

Conditions necessary to arouse reactance

Not all threats can be expected to arouse reactance in all individuals. Several conditions are necessary to arouse reactance, and can be thought of as either characteristics of the freedom being threatened or the threat itself.

Characteristics of the freedom. Reactance theory has a subjective orientation. That is, the freedoms referred to, and their importance, operate from within the individual's point of view. Therefore, a persuasion attempt can only arouse reactance if the individual is aware that he possesses the threatened freedom. For instance, in assessing a prosecutor's arguments, those subjects explicitly informed of their ability to judge the defendant innocent disagreed more strongly with the prosecutor than those not explicitly informed [Jones and Brehm, 1970; Hass and Linder, 1972]. Awareness alone, however, may not be sufficient. "The principle here is that a freedom is an expectancy and can be held with more or less certainty. Reactance can be aroused in a person only to the extent that the individual believes he or she has a freedom or control over a potential outcome" [Brehm and Brehm, 1981, p. 5].

Likewise, the individual must feel competent to exercise the freedom. It has been shown that reactance is not exhibited if the individual feels inadequate [Grabitz-Gniech, 1971], incompetent [Wicklund and Brehm, 1968;1976], or overly controlled by external forces [Biondo and MacDonald, 1971]. It has been suggested that frequent and/or successful opportunities to exercise an alternative can increase the actor's perceived competence, and therefore increase potential reactance [Regan and Brehm, 1972]. Goldman and Wallis [1979], for example, showed that art majors were less likely to be persuaded by outside influences when choosing paintings than were non-art majors.

Thirdly, the alternatives involved must be important. The greater the importance of a threatened freedom, the greater the amount of reactance aroused [Brehm, 1966: Mazis, 1975].

Finally, the availability of similar alternatives must be restricted. If the freedom may be exercised by means other than the threatened alternative, the attractiveness of the threatened alternative should be unaffected [Brehm and Weinraub, 1977; Wicklund, 1974].

Characteristics of the threat. A threat can be any force on the individual which increases the perceived difficulty of exercising the freedom [Brehm and Brehm, 1981]. The greater the perceived difficulty, the greater is the perceived threat. It may be possible for forces to be so small they do not constitute real threats, and reactance will not be aroused. On the other hand, the forces may be so great that a freedom is seen as being practically eliminated. If elimination is not permanent, reactance may still be aroused. If elimination is perceived as permanent, the individual no longer perceives himself as having control over outcomes, and there is no longer a perceived freedom. Reactance will therefore cease. The more firmly the freedom is originally held, the greater the threat necessary for the individual to be convinced the freedom has been eliminated [Wortman and Brehm, 1975].

Threats are often categorized as personal or impersonal. Personal threats are those perceived as intentional attempts to persuade. Impersonal threats are those which the individual does not see as directed towards himself so that no motive is imputed. As originally proposed, reactance theory makes no claims about the motives of actors, and making causal attributions about the threat should have no bearing except possibly on the seriousness of the threat. Personal threats are often seen as having implications for future freedoms due to expected continued contact and the imputed intent attributed to them. The implication of continued threats to future freedoms increases the magnitude of the threat, which is expected to arouse greater reactance.

However, intent to persuade has been found to arouse reactance, aside from its possible effect on future freedoms. The perceived persuasive intent may increase the magnitude of the single threat, as the communicator is no longer seen as merely providing information but attempting to pressure the actor [e.g., Wicklund et al., 1970; Hass and Grady, 1975]. Resistance to the demanded behavior has been shown to be positively related to the power and authority of the communicator of the threat [Brehm and Brehm, reported in Brehm, 1966]. Finally, reactance is aroused if the threat is seen as illegitimate or unjustified [Grabitz-Gniech, 1971].

Consequences of reactance

Reactance is a motivational state directed at reestablishing or reasserting a threatened freedom. However, as discussed above, certain factors may prohibit direct behavioral responses. These factors include the strength of the threat and the importance of the freedom. It is possible then that reactance may be aroused but there will be no behavioral response.

Even if behavioral responses are appropriate, the type of behavior will be dictated by the strength of the reactant forces present. Only if the reactant forces are greater than the compliance forces will the threatened behavior actually increase as a result of an influence attempt. Such an increase in the threatened behavior is referred to as a "boomerang effect". Otherwise, the result may merely be reduced compliance as compared to a no-reactance setting. While boomerang effects present the strongest case for the presence of reactance, reduced compliance also supports the theory. Both boomerang effects and reduced compliance have been found repeatedly as support for the theoretical model.

In summary,

> Psychological reactance, then, is created when a person who feels competent in guiding his or her own behavior in a situation perceives an important and unique behavior, belief or attitude as threatened. This reactance motivates the person to respond by (a) performing the threatened behavior; (b) counterarguing, often covertly, the reasons for and benefits of the restriction; and (c) changing attitudes toward the various alternatives, particularly reevaluating more favorably the threatened or eliminated alternative. [Petty and Cacioppo, 1981, p. 159]

Alternate view of reactance

Reactance has also been explained in impression management terms [Baumeister, 1982; Baer et al., 1980; Heilman and Toffler, 1976]. A person may be motivated by two self-concept motives: to please the audience and to attempt to construct one's ideal self. The motivation to please the audience may be salient if the audience controls or dispenses one's potential rewards, and will be dependent on the audience's values and norms as well as their expectations of the target. Such concerns include the fear of appearing weak and/or foolish by complying and the effects on the relationship with the threatener or other audience. Construction of the ideal self is the desire to make one's public image congruent to what he wants to be, or to what he sees as appropriate. It is defined by one's own values rather than others', and will pertain to the public in general rather than a specific audience.

The Present Research

Most research to date involving professional preparers can be classified as either economic or attitudinal research. The former has been primarily concerned with the effects of preparers on taxpayer compliance and has only recently begun to look at the effects of other factors on preparers. The latter has been primarily state-descriptive and has yet to posit any comprehensive models or theories which would allow hypotheses concerning proposed changes to the existing environment.

The current research attempts to build a comprehensive model of the preparer by considering both areas. Rather than considering them as competing theories, however, they will be integrated by examining how psychological factors might moderate economic stimuli. Agency theory will be used to model the economic and legal relationship between the preparer and client while reactance theory suggests that the results predicted by an economic model may not always generalize. Previously identified characteristics of the preparer are used to predict when such moderating effects might be expected. Finally, the model is used to generate and test hypotheses concerning recently considered changes to the environment.

CHAPTER 3
THEORETICAL MODEL AND HYPOTHESES

Introduction

As discussed in Chapter 2, previous research has viewed the preparer from two different perspectives. First, the preparer has been examined analytically. From an analytical perspective, he was considered to be a rational, utility maximizing economic agent of the taxpayer. Secondly, the preparer has been examined behaviorally. From a behavioral perspective, he was believed to be influenced by perceptions of, and attitudes towards, the government, the taxpayer, and the preparer's role in their relationship. The present research attempts to build a model which integrates basic economic principles with the more person-specific considerations of attitudinal research. Unlike much prior research regarding preparers, the proposed model also allows predictions regarding the effects of certain exogenous changes in the reporting environment on preparers' behavior.

A Purely Economic Model of the Preparer

The principal-agent framework as applied to tax preparers and taxpayers can be described as involving a principal (the taxpayer) and an agent (the preparer), both expected-utility maximizers. The taxpayer's goal is to maximize his after-tax income. To help him do this, he may choose to contract with the preparer for the provision of tax advising and preparation services due to his inability to accurately file by himself, to increase his after-tax income, or some combination of both motives.

The preparer's goal is to maximize his utility which is determined by the net wage received from the taxpayer and the monetary and nonmonetary costs incurred in providing his services. These costs can be classified into two types: (1) the time and effort expended to prepare the return and advise the client, and (2) any additional, unreimbursed costs which might be incurred as the result of an audit taking place and/or preparer sanctions being assessed. The preparer's utility then can be represented as follows;

$$U = f(W, e) \tag{1}$$

where W is the net wage earned by the preparer and e is the nonmonetary costs (i.e. effort) necessary to earn the net wage. Utility is assumed to be increasing in the wage and decreasing in effort.

As explained below, the expected wage can be further represented as

$$E(W) = F(r(e),e) - P(e) - [a|r(e)]\ [b + S(r(e))] \tag{2}$$

where F = the fee paid by the taxpayer
r = the reported tax liability
P = preparation costs
e = effort spent in preparation

a = probability of the return being audited
b = unreimbursed audit costs which are constant across returns
S = the sanctions imposed given that the return is noncompliant. This may vary across returns and will depend on the reported liability. The sanction can be thought of as either a function of the under-reported liability, as shown here, or the under-paid tax.[6]

The preparer's task can be described as consisting of three main functions. The first is to identify those items which may affect the taxpayer's liability. The second is to settle any ambiguity which may exist as to the tax consequences of any items. The third is to take care of the clerical function of preparing the actual tax forms. The first two functions will be examined more closely here.

The following two sections discuss the expected relationships between the variables in the preceding equations and the existing institutional and environmental constraints which lead to the preliminary hypotheses which follow. See Appendix A for the formal derivation of the hypotheses that follow.

---

[6] Alternately, the sanction could be a function of the difference between the "true" tax liability and the reported liability. However, since tax cheating is not of primary interest here, and since the tax treatment of many items is considered ambiguous, reference to a true liability has little meaning. The relationship between the sanction and the reported liability still might be modeled as a more complex function involving the liability preferred by the taxing authority. However, for the sake of simplicity and mathematical tractability, a simple inverse relationship is considered.

Information Acquisition Stage

Recall that the primary reason given for employing preparers is to ensure the filing of a correct return [Yankelovich et al., 1984; Collins et al., 1988]. This suggests insufficient knowledge or confidence on the part of the taxpayer to file himself. If the client is relatively unfamiliar with the tax reporting environment and the laws themselves, the preparer must spend time assessing the client's situation and searching for relevant information which might affect the taxpayer's liability. For more sophisticated and knowledgeable taxpayers, this search by the preparer may be relatively less important. However, some level of search activity is always necessary on the part of the preparer to ensure that all relevant information is brought to the preparer's attention.

To varying extents then, a certain amount of search effort is required of preparers. Note that the amount of effort spent by the preparer searching for information may affect his utility in two ways. First, it is assumed that increased effort will lead to the discovery of more available deductions and credits of which the taxpayer is unaware. The potential reduction in liability, however, may be expected to result in a greater chance of the taxpayer being audited [Greatz, Reinganum and Wilde, 1986; Scotchmer, 1987], and additional costs being incurred by the preparer.

This would lead to an increase in the last term of equation 2 and therefore a reduction in the net wage and utility. More directly, increased effort will increase preparation costs, both monetary and nonmonetary, again reducing preparer utility. Accordingly, the preparer may be averse to exerting additional effort in his search.

Increased effort may also increase the preparer's expected utility through its effect on fees. To the extent fees are conditioned on effort (e.g., based on the amount of time spent on the return), increased effort will directly increase fees. If fees are based on computed tax liabilities, effort will increase fees indirectly via reduced tax liabilities. Of course, institutional constraints have historically prohibited such contracting. This possibility is included here for completeness as well as to parallel the traditional agency solution of conditioning the agent's fee on outcomes. This alternative is discussed further below.

To maintain his expected utility, a preparer who is faced with an increase in either audit or sanction costs may consider reducing his level of search effort, thereby reducing the chances of being subject to audit. This prevents any decrease in the wage by offsetting the potential increase in the last term of equation 2. Such a move may raise two concerns. If fees are based directly on effort spent on the return, then a reduction in effort may be costly to the preparer. However, even if the fee might be conditioned on effort, the preparer's actions are not observable to the taxpayer, mitigating any negative effect -- the traditional moral hazard problem. The second concern of the preparer would be the indirect effect decreased effort might have on fees through an increased tax liability. This concern also should be somewhat mitigated. The traditional solution to the agency problem of conditioning the agent's fee directly on outcomes is prohibited in this setting. Additionally, due to the expertise advantage that preparers have over taxpayers, a taxpayer is limited in his ability to use the computed liability even as a signalling device. An increase in preparer penalties then should reduce the benefits of search activity and therefore lower the level of effort expended by the preparer. The moral hazard problem and institutional constraints on contracting should allow such a reduction without a corresponding loss in fees.

The preparer's expected wage then can be restated to reflect the institutional constraint preventing the conditioning of fees on reported liabilities.

$$E(W) = F(e) - P(e) - [a|r(e)]\ [b + S(r(e))] \tag{3}$$

The first hypothesis suggested by the economic model can be stated as follows. (Note all hypotheses are stated in the alternative form.)

$H1_e$. An increase in preparer sanctions and penalties will result in a decrease in the level of search

> effort expended by professional preparers in the tax filing process.

An implicit assumption in the above discussion is that a higher level of search effort will result in a reduced tax liability and therefore an increased chance of audit. This will only be true, however, if the increased information search results in relatively more tax-reducing items (as opposed to tax-increasing items) being reported. Such an assumption is justifiable for at least two reasons. The first is the extent of third party reporting of taxable income in the current system. An increasing number of payors are subject to specific reporting requirements (e.g. for wages, interest, dividends, commissions, capital gains, pensions, etc.) while relatively few requirements exist for informing taxpayers of available deductions and credits. Therefore, a taxpayer can be expected to be relatively more informed of his income sources than available deduction and credits when he engages a preparer. Secondly, the very definitions of income and deductions reinforce this point. While income is not defined in the Internal Revenue Code, the concept of income is considered to be all-inclusive. Any receipt from whatever source derived is considered income unless specifically excluded in the Code. Conversely, only those items specifically identified as deductions can be used to offset income. Therefore, anyone who does not possess some level of expertise would not be aware of specific deductions and credits available to them, and would need to rely on a professional tax preparer to identify the available deduction.

It is possible, however, that a taxpayer may be unaware of the existence of an item of income, and that increased search effort on the part of the preparer may help identify the tax-increasing item. For instance, through faulty information obtained from peers, or by an incorrect assumption, a taxpayer may believe that a prize is not taxable. The preparer, by searching, may identify the prize and inform the taxpayer of its taxable nature, thereby increasing the reported liability. If increased search effort were expected to result in relatively more income items being reported than deductions, an increase in potential sanctions may have just the opposite effect as that predicted above. More precisely, if expectations could be captured a priori, the model would have different predictions regarding the information search for tax-increasing and tax-reducing items.

> $H2_e$. An increase in preparer sanctions and penalties will result in a decrease (increase) in the level of effort expended in identifying tax-reducing (increasing) items by professional preparers in the tax filing process.

Finally, it should be noted that the information search referred to here is not the only "search" activity engaged in when preparing returns. Preparers will also exert effort in researching, supporting and documenting the positions subsequently to be taken, all of which may be classified as legal tax research. The amount of legal research conducted by the preparer is an interesting question, and is addressed by other researchers [e.g., Marchant et al., 1989]. The effect that increased penalties have on this activity may not be the same as their effect on information acquisition. In fact, it may be argued that the time spent on legal research may increase. However, this is a different issue from that which is being examined here. This issue has potentially different consequences for the taxpayer and preparer, and should be addressed separately.

Evaluation Stage

Once potentially relevant information is obtained by the preparer, an evaluation must be made as to its consequences. As proposed by Klepper and Nagin [1987], there is little latitude in the evaluation of unambiguous items of income and/or deduction. In these cases, the relative certainty of economic penalties for the preparer and/or taxpayer compels such items to be handled in a manner consistent with that preferred by the IRS. However, as discussed previously, there are innumerable items in the tax laws and an infinite set of situations for which the proper treatment is ambiguous. It is these situations that are of interest here. It might be expected that sanctions may affect the evaluations of the tax status of these ambiguous items.[7]

Recall the preparer's utility model described above. Aggressiveness could be added as an additional argument to the model with the effects on the expected net wage being similar to those encountered with effort except that there is no direct increase in preparation costs resulting from the preparer being aggressive. The revised model would then appear as follows.

$$E(W) = F(e,g) - P(e) - [a|r(e,g)][b + S(r(e,g))] \quad (4)$$

where: g = aggressiveness and all other variables are as described before. Like effort, taxpayers are assumed to demand a certain amount of aggressiveness from preparers. Following the above arguments related to effort, increased aggressiveness may reduce the preparer's wage by increasing potential sanction costs. Likewise, increasing aggressiveness may increase fees. Since aggressiveness does not directly increase preparation costs, however, increasing aggressiveness may be less costly than increasing search effort.

To maintain his utility level, a preparer may respond to increased sanctions by reducing aggressiveness in the same manner as effort, with the same consequences. While utility might be reduced through a lowering of fees, the moral hazard problem is still present to mitigate this possibility. The model would then predict that increased sanctions would result in less aggressiveness on the part of preparers. The third hypothesis suggested by a purely economic model can be stated as follows.

---

[7] For example, Kaplan et al. [1988] found that economic variables had no effect on a professional's evaluation of unambiguous items. However, they did significantly influence the recommendations made by less experienced preparers when the item in question was not clearly addressed by the law.

> $H3_e$. An increase in sanctions will result in fewer aggressive positions being recommended by professional tax preparers.

In summary, a purely economic model would predict just what some preparers perceived to be the result of the proposed Circular 230 rules. They believe that stricter sanctions would "adversely interfere with a tax practitioner's duty of loyalty to the client by encouraging the tax practitioner to act in his own interest, not the clients' interest" [New York State Bar Association, 1987].

A Psychological/Behavioral View of the Preparer

The above model assumes that the preparer is a rational, utility-maximizing agent motivated solely by economic factors. Decisions regarding effort levels and aggressiveness are determined by evaluating their effect on profits. However, just as taxpayers may be motivated to comply by factors other than after-tax wealth, preparers may be motivated by factors other than profit. Other motivating factors will now be discussed leading to a proposed economic/psychological framework of the preparer.

Psychological Reactance

The theory of psychological reactance was discussed in Chapter 2. Applying those concepts to increased preparer penalties, the penalties can be described as a threat which is being made to restrict the behavior of professional preparers. Specifically the increased preparer penalties limit the range of recommendation positions which preparers can suggest to clients. While a purely economic model suggests that such a threat should be effective, psychological reactance would suggest that, if certain conditions apply, preparers may actually attempt to increase the threatened behavior and possibly recommend even more aggressive positions than they would in the absence of the penalties. The next section will review clients' expectations of professional preparers and the preparers' own role prescriptions that were originally discussed in Chapter 2 to determine if the conditions necessary to arouse reactance are present.

Reactance and Professional Preparers

Recall that certain conditions are necessary for reactance to be aroused. Those conditions can be classified as either characteristics of the freedom being threatened or the threat itself. Some of these conditions will be examined more specifically within the present context.

Importance of the threatened behavior

Client attitudes and expectations regarding the preparer were discussed above. Recall that many taxpayers have expressed that accuracy and safety were their primary concerns when filing their returns [Yankelovich et al., 1984; IRS, 1988; Collins et al., 1988]. However, this view is not shared by all taxpayers. It has been shown that preparers employed in large CPA firms serve wealthier individuals with more complicated financial and tax situations [Jackson and Milliron, 1987]. These preparers indicate that they believe their clients are accustomed to taking risks. They believe that clients who are accustomed to taking risks demand a certain amount of aggressiveness and tax savings from them, and are more likely to judge a CPA by the amount of perceived tax savings [Coyne, 1987]. They may also see aggressiveness as being consistent with other values and norms observed throughout society [Bernsley, 1989]. Preparers employed in commercial tax preparation services however see their clients as much more conservative. Some are perceived as willing to give up even legitimate, straight forward deduction to which they were entitled to ensure their safety [Coyne, 1987]. It appears then that the ability and willingness of a preparer to take aggressive positions may be more important to the clients of

CPAs than to clients of commercial tax preparation services who are not CPAs.

Many preparers see themselves as client advocates [Westat, 1980; Kinsey, 1987a; Coyne, 1987]. They represent their clients in what might be seen as an adversarial confrontation with the government [Kinsey, 1987b] and believe it is appropriate to settle any questionable items in favor of their client [Westat, 1987]. Those serving lower-income taxpayers, however, express greater government loyalty and do not see themselves as strong client advocates, which is consistent with their clients' attitudes towards them [Westat, 1980; Coyne, 1987; IRS, 1987]. Again, when considering not only client expectations but preparers' views of themselves, it appears that the threatened behavior may be more important to CPAs than to commercial preparers.

Recall that concerns regarding others' opinions (pleasing the audience) and those concerning one's view of oneself (constructing the ideal self), are two self-presentational motives behind reactance. It seems that client expectations and preparer self-perceptions are both consistent with the self-presentational view of reactance, at least for CPAs.

Perceptions of the threat as illegitimate or unjustified

Disagreement apparently exists between the taxing authority and preparers regarding the role of the preparer in the tax filing process. This disagreement may affect the perceived legitimacy of the sanctions imposed to reinforce the role as seen by the administration. The belief by the IRS that the preparer has begun to overstep his bounds and may be a contributing factor to the compliance problem was previously discussed. While the IRS contends that aggressive preparers exploit ambiguity in the law and may refer to this as "noncompliance", preparers generally contend that a certain amount of aggressiveness should be considered legal tax planning and represent the tax avoidance for which they are hired. They see nothing wrong with this form of aggressiveness.

Many preparers see sanctions as an attempt to prohibit them from functioning in their perceived role in the tax system. They believe they are being encouraged through increased sanction threats to serve more in the capacity of a government agent [Coyne, 1987]. Most of the tax practitioners interviewed by Coyne "strongly felt that this is not their appropriate role in the tax system." No preparer with a commercial tax preparation service expressed this viewpoint however. Commercial preparers may see their loyalties as more with the government [Westat, 1980; Coyne, 1987; IRS, 1987].

Similarly, CPAs may not see themselves as overly aggressive. In the study by Ayers et al. discussed above, subjects saw the positions they recommended as consistent with substantial authority, and therefore appropriate under the circumstances. Some commercial preparers, on the other hand, feel that penalties are necessary to curtail the actions of unscrupulous practitioners who are seen as overreaching. It seems that some CPAs may see the IRS sanctions as less legitimate and less justified than do commercial preparers.

Feeling of (in)adequacy and control

CPAs generally feel more negatively toward the IRS than other preparers who have less exposure. They see themselves in the awkward position of possessing greater social status than IRS representatives yet having less power [Kinsey, 1987a]. They represent their clients in what may be seen as an adversarial confrontation. That forum is peculiar, as Kinsey points out, in that one of the adversaries in the administrative proceeding also has the legal authority to make decisions and dole out penalties. Yielding to authority in that situation may be interpreted as acknowledging a status that is inferior to the threatener [Heilman and Garner, 1975; Heilman and Toffler, 1976]. Reactance than may be seen by CPAs as a refusal to accept this inferior status.

An Integrated Model of the Preparer

From the above discussion, it appears that there are indeed factors which might influence the actions of professional preparers in addition to those suggested by economic theory. As a professional, the ability to maintain control over one's own activities and to exercise one's expert judgement, and to successfully apply that expertise without outside influence, may be important. These factors can by incorporated in the economic model described above by adding an additional argument to the preparer's utility function as follows.

$$U = f(W, e, P) \tag{5}$$

where P represents those non-monetary factors which, if threatened, might produce reactance.

Hypotheses

It appears, based on the preceding discussion, that the conditions necessary to arouse reactance might be stronger for some preparers than for others. Those who serve higher income taxpayers may generally see increased threats as unjustified and have clients to whom the threatened behavior is important. They may view the threatened behavior as important to their self-perceived role, and see compliance with the threat as a loss of autonomy and self-esteem. For this group of preparers, a purely economic model may not be descriptive. While the hypotheses previously offered may apply to one group of preparers, they may need to be modified for preparers serving higher-income taxpayers. This leads to the following sets of revised hypotheses.

These hypotheses may be viewed as enhancements or refinements of those suggested by the economic model discussed above in that each hypothesis includes the different effects that penalties are expected to have on the different types of preparers. For commercial preparers the predictions are the same as those suggested by a purely economic model. CPAs, however, are predicted to react oppositely. It is these hypotheses, stated in the alternate form, that will be the focus of the tests that follow.

$H1_a$. An increase in preparer penalties and sanctions will result in a decrease (increase) in the level of search effort expended by commercial preparers (CPAs) in the tax filing process.

$H2_a$. An increase in preparer sanctions and penalties will result in a decrease (increase) in the level of effort expended in identifying tax-reducing items by commercial preparers (CPAs) in the tax filing process.

$H2_b$. An increase in preparer sanctions and penalties will result in an increase (decrease) in the level of effort expended in identifying tax-increasing items by commercial preparers (CPAs) in the tax filing process.

$H3_a$. An increase in preparer sanctions and penalties will result in fewer (more) aggressive positions being recommended by commercial tax preparers (CPAs).

It is also hypothesized that client expectations and role prescriptions are learned over a preparer's career and should be stronger the longer he has practiced. If client expectations and role perceptions are learned over time, then reactance arousal should be greatest for more experienced CPAs and weakest for more experienced commercial preparers. Consistent with this model, Helleloid [1989] found CPAs with more experience to be relatively more aggressive when presented with ambiguous client documentation of expenses.[8] Similarly, Kaplan et al. [1988] and McGill [1990] found that experienced Big Six preparers were less affected by economic variables and tended to be more aggressive than their less experienced counterparts.

> H4. An increase in preparer sanctions and penalties will cause differential effects across experience levels.

Summary

A predictive model of the professional preparer is presented here which integrates both economic principles and attitudinal factors concerning the relationships among the preparer, the taxpayer and the taxing authorities. First, the preparer's role as an economic agent is described and the effects of sanction threats on that role are examined. When faced with the threat of economic sanctions, the preparer would be expected to alter his behavior to comply with the threat to the extent his net wage will be affected. If the other activities might also trigger the sanctions, these activities too will be affected.

---

[8] However, when hypothetical clients were presented as inherently aggressive these results were reversed. More experienced CPAs, possibly skeptical of the documentation provided them by the aggressive client, tended to recommend less (although not statistically significant) aggressive positions.

The preparer is also influenced by non-economic factors. Over time and through exposure to other professionals and to clients, role prescriptions and client expectations are internalized. The preparer may react inconsistently with the intent of the threat if a sanction threat results in serious potential conflicts with those role prescriptions and client expectations. First, if other means exist to achieve his goals, then the preparer will pursue these means. Secondly, he may resist the influence attempt and possibly increase the threatened behavior. The model is illustrated in Figure 3-1.

The purpose of the model is not to view economic and attitudinal perspectives as competing hypotheses. Rather, the purpose is to identify reasons why and conditions when economic stimuli may not produce the intended results. Certain role prescriptions and client expectations are seen as moderating variables which, if present, will prevent the economic stimuli from being effective.

In Chapter 4 a research design and methodology will be presented to test the predictions of the model developed here. The operationalization of the constructs believed to influence preparers will be considered and an experimental task into which those constructs can be introduced is described. The results of the analyses will be presented in Chapter 5.

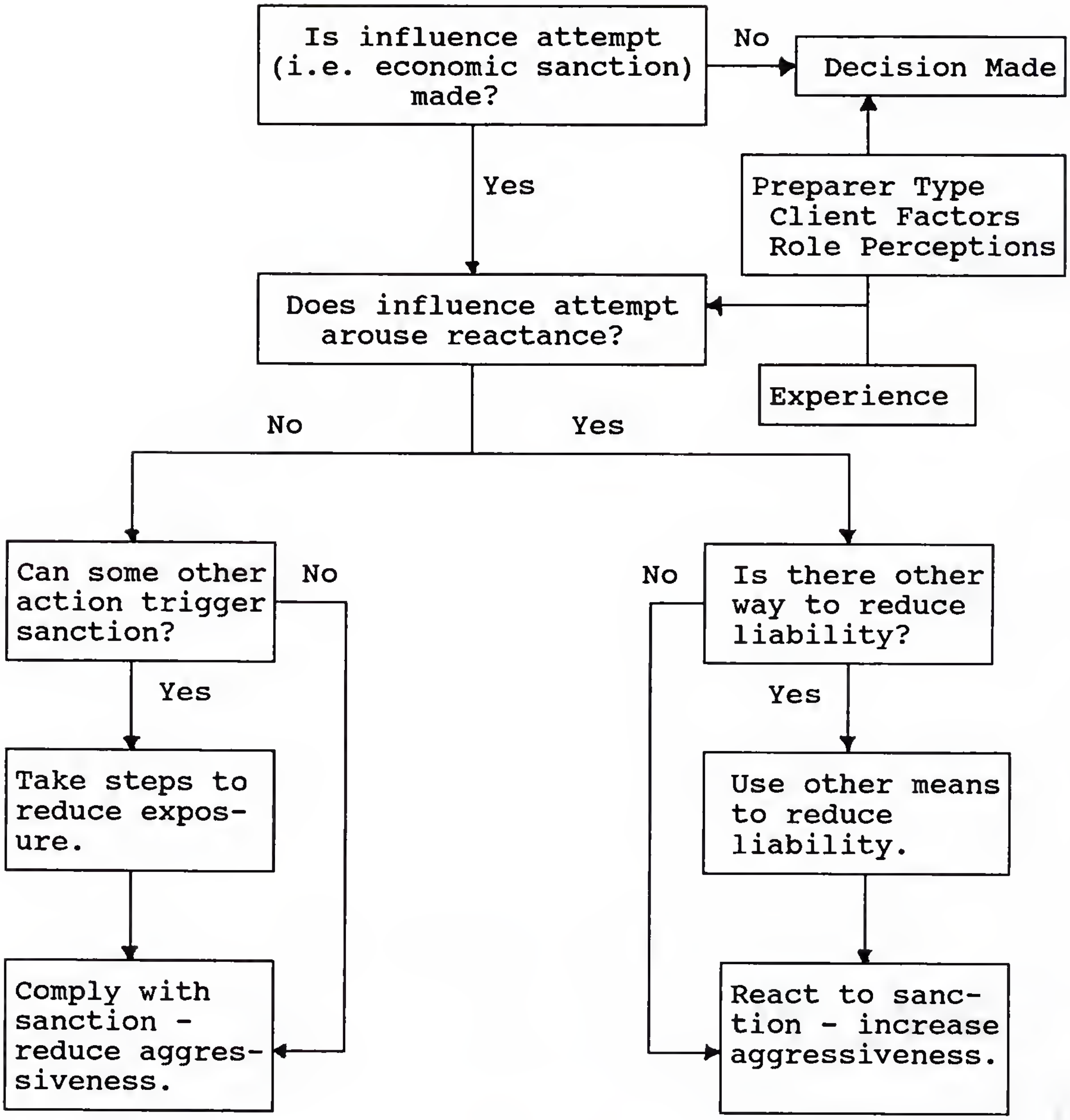
Is influence attempt (i.e. economic sanction) made?
No
Decision Made
Yes
Preparer Type
Client Factors
Role Perceptions
Does influence attempt arouse reactance?
Experience
No
Yes
Can some other action trigger sanction?
No
Yes
Take steps to reduce exposure.
Comply with sanction - reduce aggressiveness.
No
Is there other way to reduce liability?
Yes
Use other means to reduce liability.
React to sanction - increase aggressiveness.

FIGURE 3-1

Preparer's Aggressive Recommendation Decision
A Comprehensive Model

CHAPTER 4
RESEARCH DESIGN AND METHODOLOGY

Introduction

In Chapter 3, a descriptive model of the preparer was developed which integrated both economic and psychological variables. In this chapter a method is described for examining a sample of interest to determine if there is a basis for the hypotheses offered in Chapter 3. An empirical test is then designed to test the predictive ability of that model. First, the general research design is presented which describes the constructs of interest and the hypothesized results. Next, the measurement of the constructs within an experimental context is discussed and a simulation task is designed into which the factors believed to influence preparer's behavior can be introduced and the resultant behavior captured and measured. The subjects' ratings of task realism are also presented in this section.

Preliminary Analysis

The hypotheses developed in Chapter 3 depend heavily on the attitudes of professional preparers and specifically on the existence of dissimilar attitudes across preparer types.

The first step in the present research is to determine if professional preparers do possess the attitudes which have been previously described as necessary for arousing reactance. While these attitudes have been suggested by interviews with preparers, there has been no attempt to see if they are consistently held by larger groups. If these attitudes can be identified as being held consistently, then a test will be performed to determine if they differ significantly across different types of preparers. If the attributes are present and differ across preparer types in a manner consistent with the model described in Chapter 3, and the subsequent empirical tests also support the model, there is further evidence that the results of the subsequent tests are attributable to the variables suggested by the model and not competing hypotheses.

Factor Analysis

Factor analysis is an exploratory technique designed to give an impression of the interrelationships which may exist in data and to identify characteristics which may be helpful in summarizing them [Afifi and Clark, 1984]. The primary goal in factor analysis is to obtain easily interpretable factors which convey information about the original variables.

In exploratory research, the relationships which are identified can then be used to develop hypotheses to be examined empirically. In the present case, hypotheses have already been developed based on factors suggested by previous research. Factor analysis will be performed to see if the attitudes identified in surveys and interviews exist in the sample used.

Subjects were given a series of debriefing questions designed to capture their attitudes concerning the tax laws, the administration of the laws, their clients, and their role in the tax compliance process. The responses to these questions were used to extract common factors which explain the variance present in those responses. Each response can be represented as a linear combination of a set of common factors and a residual which is considered to be a factor unique to that response. Breaking each response into these two parts also breaks the variance of the response into two parts: that which is attributable to the common factors, or the communality, and that which is attributable to the unique factor. Each factor can then be interpreted by examining the partial correlation between itself and the response variable, or the coefficient of the factor in the following factor model

$$x_p = d_{p1}F_1 + d_{p2}F_2 + \ldots + e_p$$

where: x_p is the pth response variable, F_1, F_2,...F_m are the common factors, e_p is the pth unique factor, and d_{pi} is the factor loading of the pth variable on ith common factor. The interpretation of the factor is based on the response variables which load highly on that factor or that correlate highly with it.

The factors identified by the initial factor extraction, however, may be difficult to interpret either because a response variable loads highly on a number of factors or because a factor has a number of response variables that load highly on it. In such a case, these factors can be rotated so that some loadings are very high and the rest are very low. Similarly, the factors can be rotated so that each response variable loads highly on only one factor. The rotation is achieved by finding a new set of axes to represent the factors. These new axes go through the clusters of points representing the response variables. The most common rotation, the varimax procedure, further restricts the axes to being orthogonal. For a discussion of this approach, see Harmon [1976] or Afifi and Azen [1979]. While the total variance explained by the rotated factors is the same as that explained by the initial factors, interpretability of these factors may be enhanced.

Finally, factor scores can be assigned to individuals. This is accomplished by combining each individual's standardized response variables and the factor loadings. These factor scores can then be used as independent variables in subsequent analyses.

Discriminant Analysis

The factor analysis is designed to identify and interpret attitude patterns which exist in the sample of interest. However, it does not determine if these attitudes differ across preparer types. Discriminant analysis techniques are used to either classify individuals into one of a set of alternative groups or to identify which variables contribute to making the classification [Afifi and Clark, 1984]. The groups are known in advance and are distinct. The technique can be used either for predictive or descriptive purposes.

In the present case, discriminant analysis techniques will be used to determine if the factors identified in the factor analysis can be used to classify preparers into the previously identified groups (i.e., CPAs and commercial preparers). The factors are expected to be consistent within groups and to differ across groups. In making the classifications, a discriminant function is developed which makes no distributional assumptions about the underlying populations. The variables themselves, however, are assumed to have a multivariate normal distribution and the covariance matrix is assumed to be the same in both populations. The predictor variables in this case will be the factor scores of the subjects in the sample. It is expected that the factors will be consistent within preparer groups and differ across groups and therefore contribute to classifying the sample into preparer types.[9]

Experimental Design

The hypotheses derived in Chapter 3 were tested in two separate phases of the same experiment. One phase is designed to address the effect of penalty threats on effort levels of professional preparers while the other addresses the effect of penalty threats on the preparers' level of aggressiveness. The dependent variables in the two phases are the amount of search effort expended by professional preparers in a tax preparation task and the aggressiveness of the positions recommended in ambiguous situations, respectively.

Penalties are manipulated across preparers of each subject type (described below). A separate analysis is done with respect to each phase of the experiment (i.e. effort and aggressiveness), with each one being a 2 (level of penalty) X 2 (type of preparer) fully crossed analysis of variance (ANOVA). The experimental design and hypothesized results are illustrated in Figure 4-1.

---

[9] The focus here is on describing the sample and not developing a classification rule to be used with future observations. Therefore, no tests of the classification rule's predictive ability will be conducted.

Methodology

Experimental Task

Subjects were given a brief sketch of a taxpayer and asked to compute the related tax liability. The relevant information was all contained in three parts of an interactive computer program developed by Brucks [1988]. The first part included directions on how to interact with the computer, a description of the facts necessary for the subjects to conduct the experiment including the penalty manipulation (described below) and a description of the hypothetical taxpayer.

The second part of the instrument corresponded to the effort phase of the experiment. In this part, taxpayer-specific information was provided to subjects. The information was formatted similar to a tax organizer sent by many accounting firms to their clients at the beginning of the tax season to aid them in gathering relevant data. The organizer contained suggestions regarding a number of possible items of income, deductions and credits that may have applied to the hypothetical taxpayer's situation but did not necessarily refer to them all explicitly. The subject was able to request specific additional information or inquire through the computer about the information presented to him if he so desired. If available, the information was provided. If not, the subject was informed that there was no information available.

All the information contained in the organizer was of a relatively unambiguous nature. That is, if the information was requested, or otherwise presented to the subject, the tax treatment of the item or the related facts were not open to interpretation.

The third part of the instrument described five matters with ambiguous tax consequences. This part of the instrument was intended to correspond with the aggressiveness phase of the experiment. In order to complete the return, the subject needed to make a decision as to how each matter should be reported. Subjects were given a brief summary of the relevant tax laws relating to the items, and specifically told that there was no additional relevant legal or factual information to be obtained.

Determining the tax liability then required the subject to search for and uncover all of the relevant, unambiguous information in phase one as well as choosing a settlement of the ambiguous issues in phase two. The computer program used is designed to capture and record subjects' search strategies, the number and nature of the specific inquiries and the time spent on the task. Using a computer prevented subjects from knowing the extent of available information as they would with instruments such as information boards or other physical presentations used in related studies. At the same time, it allowed subjects to interact with the hypothetical client as well as to conduct a structured search which is intended to resemble the process actually performed when preparing returns and advising clients. Subjects gave the task an average rating of nearly 9 out of 11 when asked about its realism relative to actual encounters with taxpayers. Table 4-1 shows that this rating was not significantly different across preparer types or penalty levels. The realism achieved with the use of an interactive setting is one major contribution of this study.

Subjects were not required to calculate actual tax liabilities due to the time and effort necessary to complete the instrument. However, the computer collected all information necessary to measure the constructs of interest and perform the analysis during the task so that calculating an actual liability was not necessary. The entire task took subjects an average of sixty-three minutes to complete, including the instructions and the debriefing questionnaire. After completing the effort and ambiguity phases, subjects were told that the computer kept track of their findings and how they handled the ambiguous items and that the return would be generated automatically.

Finally, subjects went through a debriefing phase. Various demographic and attitudinal data were collected including information which could be used to test the assumptions regarding the presence or absence of conditions which may arouse reactance. Before the actual experiment was conducted, the instrument was pilot tested with three groups. The first included three doctoral students each with between four and seven years experience in tax practice. The second included three professional preparers with between 2 and 10 years experience in a "Big Six" accounting firm. The third was comprised of eighteen Masters of Taxation students, most with between three and nine months of professional experience. All subjects indicated the instrument was easy to follow, clear and realistic, and their comments were incorporated into the final version where appropriate. (See Appendix B for a description of the task and the instructions given to the subjects.)

Operationalization of Variables

Dependent variables

Effort. In phase two, effort was defined to consist of two separate constructs and was therefore measured in two ways: as the number of inquiries made during the experiment and the time spent completing phase two of the task. Each item presented to a subject in phase two offered an opportunity to make two successive inquiries of the hypothetical client. If there was no additional information related to an inquiry, the subject was notified to this effect, but the request was nonetheless considered in the measure of effort. This raises two issues.

First, the results should not be affected arbitrarily by the specific items requested. Such would be the case if only certain items were subject to request, or if some allowed successive requests while others did not. All requests therefore carried the same weight. Relatedly, each item in the organizer provided the opportunity to request information and was considered in the measure of effort whether the hypothetical taxpayer provided an informative response or not, or whether the request was successful in providing the subject with additional or useful information or not. Since the "success" of a request, or the logic behind making the request, was not a factor, inferences cannot be drawn concerning the efficiency of the effort supplied. However, it is hoped that by providing a number of situations in which it was seemingly unnecessary to request additional information, subjects would not be motivated to conduct an exhaustive search and the task and results would have more external validity.

Secondly, the time spent on the first phase of the task was considered a measure of effort. While time alone does not indicate the effort spent by subjects on the task, it is felt that when combined with the first dependent measure, time will be informative. That is, while two subjects may make the same number of inquiries, the two may differ with respect to the extent to which the information received is processed. In the extreme, one person may need to make fewer requests than another because increased processing makes an additional inquiry unnecessary. In such a case, simply considering time or inquiries alone may not capture the effort expended by a subject.

Recall that additional effort spent on identifying potentially tax-increasing and tax-decreasing items may have opposite effects on a preparer's utility. Accordingly, separate measures were taken of the number of tax-increasing and tax-decreasing items searched and the time spent searching for each. To do this, an assumption must be made as to the subject's motive when making an inquiry. It is that motive or expectation, and not the information actually obtained, which is informative. Knowledge of the preparation process and familiarity with the environment might allow someone to make assumptions regarding the motive of an inquiry given the circumstances surrounding it.

In this case, each potential inquiry was classified as tax-increasing, tax-decreasing, or neutral. A neutral classification indicates either that no motive can be logically associated with the inquiry or that there are both tax-increasing and tax-decreasing motives for making the inquiry and the specific motive for any particular subject cannot be determined. The classification was done independently by three judges including the researcher, all with between four and seven years of experience in professional tax practice. Table 4-2 shows the classifications of possible inquiries and the degree of agreement between each judge and the researcher, whose classification was used in the analyses presented in Chapter 5. The motive associated with 83% of all potential inquires was agreed upon unanimously by all three judges. The contingency coefficient is used to measure the degree of correlation between two sets of nominal data. The contingency coefficient is distributed as a chi-square statistic. A chi-square test shows that the null hypothesis that the classifications of each judge are independent of that used in the experiment can be rejected at $p < .001$ for each judge.

Aggressiveness. In tax practice, aggressiveness can take many forms. In this research, the concern is with the interpretation of ambiguous legal statutes and/or their applicability to a given factual situation. Aggressiveness can be measured on two different scales. First, when presented the issue, the subject was asked to make a determination as to how he would report the item on the tax return. The response was therefore a dichotomous variable (i.e., deduct or not deduct). The number of issues decided in the taxpayer's favor by the subject became the variable used in the analysis. Secondly, the subject was asked how sure he was of handling the issue in that manner. The response was on a scale of 1 to 11 with 1 being "definitely deduct (exclude from income)" and 11 being "definitely not deduct (include in income)." This second measure is obtained because a continuous scale allows any difference in aggressiveness which exists across treatments, but which was not strong enough to result in a change in behavior given a dichotomous response variable, to be captured. The actual cases given to subjects and the response scales are reproduced in Appendix B.

To control for any differential carryover effects which might exist from doing one phase of the experiment before the other, the order of presentation was randomized within groups. One-half of the subjects in each group received the effort phase of the instrument before the ambiguous cases while the other half received the ambiguous cases first.

The use of analysis of variance techniques requires certain assumptions of the dependent variables: (1) the values drawn from each treatment population are normally distributed (2) the variances across treatment groups are equal and (3) the within group and between group error components are independent. The last assumption is more a requirement of the experimental design than a statistical assumption regarding the population. It has been shown, however, that the sampling distribution of the underlying F test is robust even to flagrant violations of these assumptions [Keppel, 1982]. Additionally, there is no reason to expect that the third assumption would be violated given the detail of the experimental design.

Independent variables

Preparer Type. The model developed in Chapter 3 suggests that, when considering preparers' client bases and self-perceptions, one group of preparers may exhibit reactant behavior while another may behave more in a manner predicted by a purely economic model. The latter group includes those who serve lower-income taxpayers, represented in this study by preparers with commercial tax services and smaller accounting firms. The former group is descriptive of CPAs and other large-firm accountants, represented in this study by CPAs from national accounting firms.

While these two groups do not represent all those who prepare income tax returns for compensation, Table 4-3 shows that together they constituted a large portion of the paid-preparer population in 1979. It is reasonable to believe that the percentage of returns prepared by these groups has increased since then along with the general increase in returns prepared by third parties. These groups are also believed to be the endpoints of a continuous spectrum of professional preparers which may exhibit varying levels of numerous characteristics, including client advocacy, government loyalty, and professional identification. The model predicts that these two groups will react differently to increased penalties, with CPAs increasing and commercial preparers decreasing both exhibited effort and aggressiveness.

It should be noted that most studies which examine the economic incentives of individuals use novice subjects with the hopes of avoiding any personal biases or contextual effects which may affect individual decision-making [Davis and Swenson, 1988]. The purpose of such studies is often to test an economic theory in a setting which eliminates all confounding influences and therefore gives the theory the best possible chance of being demonstrated. In some situations, experts might be used because they alone posses the knowledge necessary to deal with the task [e.g. Meade, 1990]. In the present case, knowledge of the task is also important since only professional tax preparers know the process they go through when preparing returns. Therefore, it is necessary to examine them directly to learn about this process and to make inferences about how the process might be affected by changes in the environment. More importantly, however, professionals are used here precisely because the theory being examined is primarily concerned with the effects of contextual variables. A purely economic theory is not being tested directly, but rather the interest is in how contextual factors moderate economic theory. To do this, it is necessary to examine those who have been subject to the contextual variables and environmental factors which are of interest.

Finally, it should be noted that subjects are being chosen and classified with respect to their firm, or employment status, not with respect to their individual professional status, education, or other individual characteristics. It has been shown that firm affiliation is a stronger determinant of the attitudes and perceptions of preparers than measures of the individual's professional status [Ayers et al., 1987; Kinsey, 1987b; Coyne 1987]. Therefore, any CPAs which might be employed by volume services or non-CPAs employed by CPA firms should not contaminate the analysis, and this possible inconsistency is ignored.

Eighty-one professional preparers participated in the study. These were made up of thirty-seven preparers employed in commercial preparation services (CPSs), eight small firm accountants belonging to the Florida Association of Independent Accountants and thirty-six CPAs from tax departments of national accounting firms. The average participant was age 42 and had approximately five years of tax experience. CPAs and non-CPAs differed in their relative amount of relevant experience with non-CPAs having slightly more. Forty-five percent of the subjects were male. Commercial preparers came from 3 different offices in three different cities while CPAs came from five offices of four national firms.

Penalty Level. The manipulated variable is the level of penalties. In order for subjects to be "penalized", however, there had to be a monetary payoff from which to extract the penalty. Accordingly, subjects were paid for their participation.

The pay was tied to what would actually be charged to a client for preparing the hypothetical return. This was done to add a sense of realism to the task, as well as to help appropriately define the subjects' utility function by allowing them to be rewarded for supplying additional effort. For example, a fixed fee might discourage participants from supplying much effort since there is no benefit to doing so. However, motivation exists for supplying the additional effort if additional effort turns up more items which allow the subject to raise his fee. Subjects' pay was a percentage of what would be charged to a client for the return. In order to avoid individual gaming, the average fee charged by each office participating in the experiment was calculated and used to compute payoffs. Subjects were told that their individual pay would be determined as a percentage of their office's average fee and that unusually high reported fees would be investigated. This format was intended to mitigate the benefit of charging an unreasonable fee and to prevent individuals from inflating their fee to increase their payoff.

Two related issues also exist with respect to the payoffs. While it is hypothesized that contextual factors would moderate economic variables, it was necessary that the economic factors be strong enough so as to be salient. As subjects were professionals, the payment for the task needed to be appropriate to get their attention and motivate them to act realistically. A payment that is too low might cause the economic factors to be less relevant in the experiment than they would otherwise be. Too high a payment might cause the economic factors to dominate where they otherwise would not. The absolute level of payoff was therefore considered very important.

Additionally, paying the two groups the same amount would undoubtedly make the economic factors either too strong or too weak for at least one group since the two subject types get paid relatively different wages for providing their services. Therefore, subjects were paid differentially, with the intention being to place each group at relatively the same point on their respective utility functions. CPAs were paid 3 percent of what they reported their fee would be and received an average of approximately $22. Commercial preparers were paid 15 percent of what they would charge, or approximately the commission rate earned by preparers of one large commercial service. They received an average of approximately $12 for participation.[10] It is believed that these amounts are large enough to be equally salient to subjects without unduly influencing them.

Each subject type was divided into two groups with penalties manipulated across groups. In one group, subjects were told

> "We realize that many items are subject to different interpretations and that the liability you calculate may be different from that calculated by others. As a practicing tax professional, we are interested in your interpretations and judgments, so please proceed just as you would in real life. Your pay will not be affected by any decisions you make or the liability you calculate."

This was intended to inform subjects explicitly that there were no penalties and to avoid any preconceptions they might otherwise have had when approaching the task. Additionally, it was hoped to convey the message that subjects' judgments and actions were respected and were not under scrutiny or being threatened.

In the second group, subjects were told that the returns they were preparing were subject to audit and that they would be penalized a percentage of their fee for every dollar of under-reported liability. Selection for audit depended upon a number of factors, including the reported tax liability. Under-reported liabilities would be determined by reference to a liability calculated according to the IRS' interpretations. So as to ease the strength of the threat and not totally eliminate the subject's latitude to make evaluations, they were told that penalties could be abated by the experimenter if they could show that they were improper under the circumstances. The penalty described was intended to represent a strict liability standard. Subjects were also told that the penalty was included because of the view of the administration expressed recently that professional preparers had begun to lose sight of their responsibility to the tax system. This was intended to put the penalty in the context of the recent controversy surrounding the topic and make the penalty more salient.

---

[10] The small-firm accountants typically charge clients more than commercial services. However, their net wage after expenses is believed to be closer to commercial preparers than to large firm CPAs. Therefore, their pay rate was adjusted downward to 8% so that their payoff was similar to commercial preparers. The average charged by these accountants was approximately $150 and their average pay was $12.

The penalty was equal to 5 percent of the subject's payoff for each $100 of under-reported liability. Therefore, while the payoffs differed by preparer type, the magnitude of the penalty treatment was constant. It should be noted that this penalty structure is different from many of the fixed dollar penalties that currently exist in the tax laws. As explained above, however, since the preparer types have different utility functions, equal dollar penalties might be seen as relatively stronger by CPSs than CPAs. A percentage penalty was chosen so as to keep the magnitude of the penalty manipulation constant across preparer types, thereby keeping the magnitude of penalty from being confounded with preparer type and making any results uninterpretable.[11] (See Appendix B for the explanation of the payoff and penalties given to subjects.)

Before beginning the actual task, subjects in the high-penalty group were required to calculate the penalty that would apply in a hypothetical situation. This was done to insure that they understood when the penalty might apply and how it would be determined. They were not allowed to continue until they could calculate the penalty correctly.

To determine whether the penalty manipulation was salient, subjects were asked to respond to the following statements during the debriefing: "Describe the magnitude of the potential tax preparer penalties which you believe you and/or your company are subject to when preparing returns for clients." and "Describe the magnitude of penalties you believe you were subject to IN THIS STUDY." Subjects were also asked to pick a description of the potential penalty they were subject to from a list of descriptions presented to them.

---

[11] It should also be noted that the form of the penalty used in the experiment will make any results in the experiment relatively weaker than that which might be observed using constant-dollar penalties. That is, if CPSs respond to economic threats more strongly than do CPAs when the threats are of relatively equal strength, then a fixed dollar threat, which might be seen as stronger by CPSs than by CPAs, might magnify the differences. Therefore, any differences between reactions to penalties by the two groups in this study might be interpreted as the most conservative estimate of the difference which might be observed in actuality.

Summary

The results of the factor analysis and discriminant analysis will suggest whether or not there is a basis for $H1_a$ through $H3_a$. Certain conditions have been identified which would be expected to arouse reactance and cause preparers to react unexpectedly to sanction threats. If those conditions are identified by the factor analysis and found to differ across preparer types by the discriminant analysis, then there is a basis for the hypotheses and further support for subsequent tests designed to empirically test the hypotheses.

Recall that $H1_a$ predicts that penalties will increase the level of effort exerted by CPAs and decrease the level of effort exerted by commercial preparers. A significant penalty level x preparer type interaction in the ANOVA examining the time spent on the experimental task or the number of inquiries made by subjects will lead to the acceptance of $H1_a$. The dependent variables will then be refined by considering the motives of subjects when making inquiries or spending time on the task. $H2_a$ and $H2_b$ predict that penalties will have opposite effects on the level of effort spent on tax-increasing and tax-decreasing items as well as opposite effects on different types of preparers. A similar interaction effect when examining these measures will lead to the acceptance of $H2_a$ and $H2_b$. Finally, a significant penalty level x preparer type interaction when examining the number of pro-taxpayer positions taken by subjects and/or their rating of the ambiguous cases will lead to acceptance of $H3_a$ and the conclusion that penalties have opposite effects on the aggressiveness of CPAs and commercial preparers.

The moderating effect of preparer type on penalty level is expected to be one of direction and not merely of strength. Main effects of penalty level are therefore not anticipated. Nor are simple effects of penalty for each preparer type necessary to accept the hypotheses. However, examination of the dependent variable means will be necessary to ensure that the interaction effect is not due merely to the strength of the penalty effect.

H4 predicts that the effect of penalties will be stronger for more experienced preparers than for less experienced. Subjects' level of experience will also be measured and introduced into the model to test H4. A significant interaction involving experience, preparer type, and penalty level will support H4, suggesting that experience moderates the predicted interaction. A stronger interaction for more experienced subjects will support the proposed model.

An alpha level of .10 will be considered significant in all ANOVAs. However, as all hypotheses involve directional predictions, the significance levels suggested by bi-directional F tests will be conservative. Hypotheses predicting two-way interactions involving three variables will reduce cell sizes, also biasing the results against rejecting the null. In these cases, therefore, results which may be only marginally significant may be considered to merit further investigation. Finally, the significance levels of directional simple-effects F tests will be reported similar to one-tailed T tests. The results of these tests will be presented in Chapter 5.

		Penalty Level	
		NONE	HIGH
Preparer Type	CPS		
	CPA		

Predicted Results

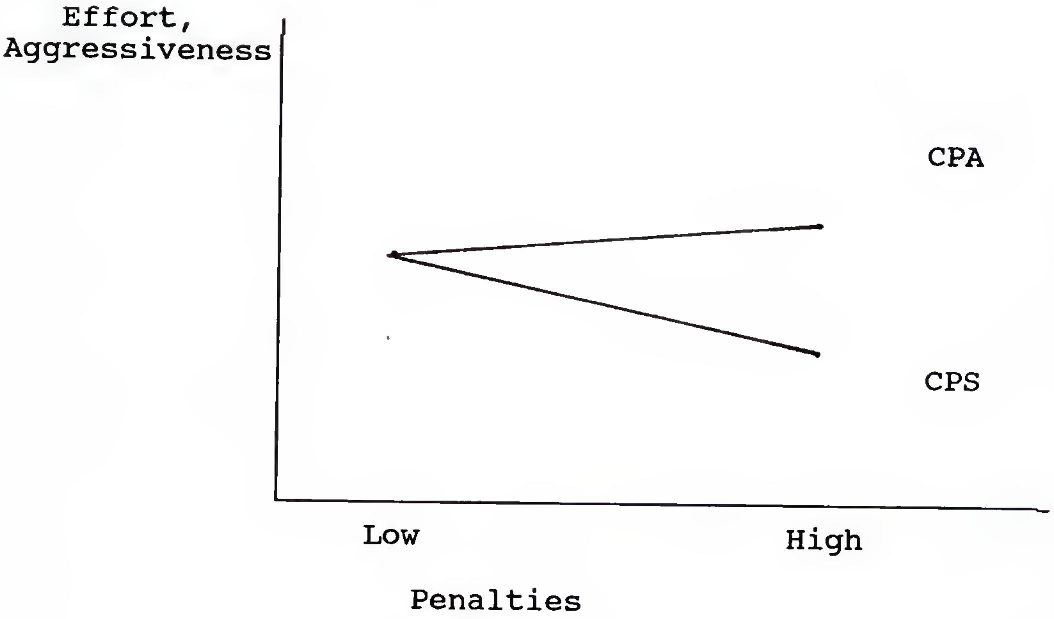

FIGURE 4-1

Experimental Design

TABLE 4-1

Subjects' Ratings of Task Realism

Source	DF	Type III SS	F	Pr>F
Penalty	1	7.564	1.28	.675
Preparer	1	1.049	.18	.262
Pen x Prep	1	11.679	1.97	.165
Overall Mean	8.80			

TABLE 4-2

Agreement of Judges with Classification of Potential Inquiries

	Classification Agreement* Including All Possible Requests		
Search Type	Judge One	Judge Two	Unanimous
Neutral	100%	77%	77%
Tax-increasing	92%	88%	83%
Tax-decreasing	87%	100%	87%
Total	92%	90%	83%
Chi-square statistic	359.8	305.5	
Pr > chi-square	.0001	.0001	

*Percentage of possible subject inquiries of each type for which judge agrees with classification used by researcher in experiment.

	Classification Agreement** Inquiries for Additional Information		
Search Type	Judge One	Judge Two	Unanimous
Neutral	100%	70%	70%
Income-increasing	92%	88%	83%
Income-decreasing	87%	100%	87%
Total	92%	89%	81%
Chi-squared statistic	319.7	263.5	
Pr > chi-square	.0001	.0001	

**Percentage of possible subject inquiries of each type for which judge agrees with classification used by researcher. Excludes requests for the succeeding page of organizer, all of which are classified as 'Neutral'.

TABLE 4-3

Return Preparation Modes - 1979

Type	Percentage of Returns
No Assistance	44.4%
Unpaid Assistance	10.2%
Attorney/CPA/Public Accountant	16.8%
National Tax Services	9.5%
Local Tax Services	11.6%
Other Paid Assistance	7.4%

Source: Klepper and Nagin, 1987, p. 25.

CHAPTER 5
RESEARCH RESULTS

Introduction

In this chapter the results of the statistical tests described in Chapter 4 will be reviewed. First, some descriptive data regarding the sample will be presented and some differences and similarities between the two preparer groups will be highlighted. Next, a factor analysis is done to determine if the attitudes obtained from subjects in the debriefing can be categorized and summarized. These attitudes are then used in a discriminant analysis to see if they are successful in determining preparer type. After a test to see if the experimental manipulation was salient, the primary analyses are presented. Finally, some factors which have been found to affect the aggressiveness of taxpayers are considered. The purpose of these tests are (1) to ensure that these factors are not confounded with the independent variables included here, (2) to potentially increase the explanatory power of the primary analyses by reducing error variance and (3) to further support the hypotheses by testing for certain expected interaction effects.

Descriptive Data

The hypotheses generated in Chapter 3 depend heavily on the attitudes and opinions of the individuals involved. For that reason, the attitudes expressed by the subjects regarding the tax laws, the administration, their clients and themselves as well as any differences in these attitudes across preparer types will be reviewed here.

Subjects

As described in Chapter 4, a total of eighty-one subjects participated in the experiment. This included thirty-six CPAs from five local tax departments of four national accounting firms. The offices of these firms were located in three different cities throughout Florida. Also included were thirty-seven preparers employed by commercial preparation services in three different Florida cities. Finally, eight sole-practitioners were recruited from a local chapter of a statewide professional organization. The sole-practitioners were all non-CPAs and will be grouped with the commercial preparers for purposes of the descriptive analyses that follow.

Table 5-1 contains a summary of the subjects' demographic data. A summary of their responses to a number of other issues is contained in Appendix C. While the non-CPAs were significantly older than the CPAs (fifty years vs.

twenty-seven years), the two groups did not differ greatly in relevant experience. The average experience level was approximately five years. The commercial preparers were predominately females while the CPAs were predominately males.

The commercial preparers indicated that their clients were primarily middle- and low-income wage earners while the CPAs serve primarily small- to medium-sized businesses. Both groups however indicated that individuals made up a significant portion of their practices. The fee that would have been charged by the subjects for the hypothetical return differed greatly across groups with the commercial preparers charging an average of approximately $100 compared to $725 by the CPAs.

Both groups thought that the tax laws were generally unfair. However, neither believed that their clients benefitted or suffered disproportionately to the taxpaying population in general. Non-CPAs felt that the laws were relatively more "straightforward" than did the CPAs. It is not clear, however, if this result is due to a true difference of opinion regarding similar laws or if it reflects a difference in the laws and situations encountered in their respective practices.

Both groups judged themselves more favorably than their IRS counterparts in their ability to interpret and apply the tax laws while CPAs believed themselves relatively more able than did non-CPAs. Neither group felt that the IRS enforces and administers the laws "fairly".

While both groups believed that their clients were relatively honest with them regarding their income and expenses, CPAs thought their clients were more so. All believed, however, that that honesty would not extend to an IRS representative preparing their return. Apparently, preparers believe their advocacy role enhances communication with taxpayers. Subjects' opinions regarding the aggressiveness of their clients were judged by their response to the following question: "What percentage of your clients do you believe would agree with the following statement: 'I would be willing to forego some tax savings from taking fairly straightforward deductions in order to file a safer tax return'?" While non-CPAs indicated that they believed more of their clients would agree with the statement (approximately 35%), the two groups did not differ significantly.

Subjects were also asked questions about themselves and their practices. Both agreed that they get a sense of personal satisfaction from being able to reduce their clients' tax liabilities, with non-CPAs rating such satisfaction higher than CPAs. While the two groups differed on how complex they believed the law to be, both felt that complexity made professional preparers necessary to ensure fair application of the law to taxpayers. In applying the law, non-CPAs felt that their recommendations were determined more by IRS guidelines (as compared to their own interpretations) than did CPAs. Relatedly, CPAs felt that they reported more aggressive positions, which might be subsequently disallowed, than did non-CPAs. It is not clear, however, if this reflects a difference in aggressiveness or opportunity arising from a difference in the two groups' clients. CPAs also felt a stronger responsibility to their clients' interests than did non-CPAs although both groups indicated that their primary responsibility was with their client rather than with the government. Neither group saw themselves as a contributing factor to the tax compliance problem, with CPAs feeling more strongly about this than did non-CPAs. Contrary to popular belief, both groups felt that the responsibility for deciding how to report ambiguous issues on a client's return was a joint decision between themselves and their client, and not solely their client's responsibility. Subjects in each group were also asked to compare themselves directly to the other group. Both groups declared themselves as equally aggressive and relatively more competent than the other.

Finally, subjects were asked about the potential impact of increased civil penalties on their practices and their recommendations to clients. Both groups believed such penalties would be effective in enhancing compliance among non-CPAs. However, only the non-CPA group felt they would have an effect on CPAs. Neither group believed increased penalties would influence the recommendations they made to clients or substantially change their relationship with clients.

Attitude Patterns

Subjects' responses to the debriefing questions were used in a factor analysis to determine if there were consistent attitudinal patterns which might lead to reactance arousal. Using principal components as the initial factor method, seven factors explained a total of approximately sixty-five percent of the variance in the responses. All seven factors had eigenvalues greater than one. An orthogonal varimax rotation was performed to aid in the interpretation of the factors and the resulting loadings are presented in Appendix D.

The first factor identified captures the subjects' opinions regarding the effectiveness of penalties in enhancing compliance. The positive loadings on the separate questions concerning CPAs and non-CPAs suggests that subjects believed penalties would effect the two groups similarly.

The second factor deals with subjects' views of the IRS and the tax laws themselves with fairness and complexity issues being somewhat related. The third factor deals with subjects' views regarding their own role in dealing with tax law fairness and complexity. Their opinions concerning the necessity for their services as created by tax complexity, their ability to deal with that complexity and the perceived need for sanctions are all related. Interpreted in the context of the current research and the model discussed in Chapter 3, factors two and three together describe the legitimacy that subjects attach to preparer sanctions. Factor two can be called the causal factor in that it addresses the perceived complexity and fairness issues which necessitate the actions which are subject to the sanction threat. Factor three can be called the response factor in that it addresses the manner in which subjects see themselves responding to the complexity and fairness issues raised. Together, they speak to the perceived legitimacy of the sanction threats.

Factor four includes the subjects' degree of client advocacy and the extent to which that advocacy manifests itself in the tax return. Factor five is the degree of personal satisfaction derived from successfully serving clients. Factor six captures subjects' opinions of the effects penalties can have on their relationships with their clients. Factor seven includes the perceived need for the preparer's service from the client's point of view. Taken together, and in the context of the present research, these factors capture the importance of the threatened behavior. Interpreting the law in a particular manner may be important for several reasons including the following: (1) it may effect the client whom the preparer serves (2) the preparer may believe he has a certain responsibility and derive a sense of satisfaction from fulfilling it, and (3) a forced change may have a negative effect on how he is viewed by his most important audience (his clients).

The factor analysis suggests that two of the conditions necessary to arouse reactance, the perception of the threat as illegitimate and the importance of the threatened behavior, may exist as consistent and identifiable attitudes in the subjects tested. It does not show, however, if these attitudes differ across preparer types as was suggested in Chapter 3. To test this, discriminant analysis was performed using the factors already identified as predictor variables.

Attitude Differences Across Preparer Types

Discriminant analysis is used to describe or predict group membership based on a set of predictor variables. The procedure assumes that the predictor variables have a multivariate normal distribution and that the covariance matrix in each population is the same [Afifi and Clark, 1984].

In the present case, the predictor variables are the attitudinal factors identified in the factor analysis. By construction, each factor is normally distributed with a mean of zero and standard deviation of one. The first assumption of discriminant analysis is therefore met. To determine if the second assumption is met, a test of within covariance matrices was done and the null hypothesis of equal covariance matrices was rejected at $p<.0001$. The results of the chi-square test are presented in Table 5-2. Accordingly, the separate within covariance matrices were used to develop a quadratic discriminant function.

Originally, only those subjects who were CPAs or commercial preparers were used to develop the classification rule. This left seventy-three subjects available for the calibration data set. Using all seven factors as predictor variables, the discriminant function properly classified eighty-five percent of the sample including eighty-two percent of the commercial preparers and eighty-nine percent of the CPAs.

Next, the discriminant rule was used to classify the non-CPA sole-practitioners. Using all seven factors, five of the eight sole-practitioners were classified as commercial preparers. Since these subjects most closely resemble commercial preparers, they will be included in this group in the analyses to follow.[12]

---

[12] The tests to follow were repeated omitting the sole-practitioners. As the results were materially unchanged, only those results including the sole-practitioners with the other non-CPAs will be presented.

It appears from the discriminant analysis that the conditions necessary to arouse reactance, which were shown to be present from the factor analysis, differ by preparer type as suggested by prior research. In the next section, the results from the experiment will be analyzed to see if the reaction to sanction threats produced different results across preparer types as hypothesized.

Manipulation Checks

To ascertain whether or not the penalty manipulation was salient the following question was asked in the debriefing: "Describe the magnitude of penalties which you believe you were subject to IN THIS STUDY." Subjects responded on an eleven-point scale where one was described as "extremely low - nonexistent" and eleven was described as "extremely high". Table 5-3 shows that the mean response to that question differed across penalty groups with those in the high and low penalty groups having average responses of 4.05 and 3.12, respectively. The difference, however, was only marginally significant. Panel B of Table 5-3 contains a multivariate test of the manipulation controlling for preparer type. While CPAs consistently rated the penalty higher than non-CPAs, the lack of an interaction between preparer type and penalty level suggests that the penalty manipulation was equally strong across preparer types. The mean ratings are shown in Panel C of Table 5-3.

The weak significance level of the manipulation may be due to a weak manipulation, a lack of convergence between the manipulation and the construct of interest, an "unreliable manipulation (i.e., one for which the within-cell variance of the intended independent variable is high), an unreliable manipulation check, or some combination of these factors [Perdue and Summers, 1986]. In this case, since the independent variable is not a latent variable (i.e., an attitude or perception) but an observable factor, it seems unlikely that there was a lack of convergence between the manipulation and the independent construct. Rather, the results may be due to a combination of a weak manipulation and an unreliable check.

The five percent penalty for each $100 of underpaid tax may have been seen as a relatively small penalty by the subjects. Assuming a 28% tax rate, the disallowance of a $1,000 deduction upon an audit would reduce a subject's pay by fourteen percent (0.14=($1,000 x .28)/100 x 5%). This reduction may not have seemed like a significant amount to the subjects participating in the experiment. Additionally, the manipulation check may have been unreliable. Asking the subjects about the magnitude of penalties to which they were subject in the experiment may have caused them to consider the amount of penalties which they believed would actually be assessed. If a subject believed he would not have any penalty assessed even if he were aware of the penalty rule, his response would lead to the conclusion that there was a weak manipulation.

Neither of the above possibilities, however, leads to the conclusion that the manipulation was not salient or that the results cannot be attributable to the independent construct. Recall that the penalty threat, which is an observable event, was the manipulated variable. That threat is expected to arouse reactance in certain subjects. It is the importance of the threatened behavior and the legitimacy of the threat, and not necessarily the strength of the threat, that is expected to arouse reactance. Therefore, it is believed that convergent validity was achieved between the manipulation and the independent construct.

Hypothesis Tests

The Effect of Penalty Threats on Preparer Effort

The first and second hypotheses involved the effect of penalty threats on the level of effort expended by preparers in searching for and identifying relevant taxpayer information. Effort is measured both by the number of inquiries made by the subject and the amount of time spent on the experimental task. The results of analyses of variance testing for an effect of preparer type and penalty level are presented in Tables 5-4 through 5-12.[13]

Panel A of Table 5-4 looks at the effects of preparer type and penalty on total preparer inquiries. These include all requests made by subjects for additional information no matter the motive for, or the type of, information requested. The overall R-square is 35% and, as expected, the interaction of preparer type and penalty level is significant at an alpha level of less than .02. The cell means presented in Panel C of Table 5-4 show that the effects of penalty level on both CPAs and non-CPAs were in the hypothesized directions. Separate tests of penalty level for each preparer type, presented in Panel B, show that CPAs (non-CPAs) in the high penalty condition made significantly more (fewer) inquiries than did those in the no penalty condition. The null hypothesis of no penalty effect is rejected for both CPAs and non-CPAs.

The second measure of effort was the time spent on the experimental task. This included the time spent reading and analyzing the information presented to subjects directly as well as the time spent searching for and analyzing additional information. Panel A of Table 5-5 presents an analysis of variance of total experimental time with preparer type and penalty level as the independent variables. Preparer type and the preparer x penalty interaction are both significant at alpha levels of less than .001 and .05, respectively. The overall R-square is .26. Separate tests of penalty for each preparer type show that the penalty was significant for CPAs at an alpha level of approximately .05 but not for non-CPAs. However, examination of the means reveals that the penalty caused non-CPAs to decrease the time spent on the task. While both of these changes taken individually are not statistically significant, the significant interaction effect indicates the overall effect of penalty was not consistent across preparer types.

---

[13] One sole practitioner collaborated with a colleague during the administration of the instrument. This subject will be excluded from all but descriptive analyses since the research is concerned with individual decision making and since collaboration necessarily effects at least one of the dependent measures in the study. Additionally, due to a programming error which was discovered and corrected after the first group of subjects was tested, two subjects did not complete the effort phase of the experiment. The total number of usable responses for this section is therefore reduced to seventy-eight.

The above measures of effort both include items over which subjects have little control and which therefore cannot be expected to be affected by the penalty manipulation. These items include time and inquiries concerning successive pages of the organizer which are presented to every subject as long as the organizer is read until the end. The measures also include amounts to which no motive can be attributed. As explained in Chapter 3, if there is no logical relationship between the effort exerted and the expected impact on the tax liability, then there is little reason to hypothesize that a penalty will have an effect. For that reason, the analyses were repeated omitting from the dependent measures inquiries classified as "neutral" and the related time spent on them.

Table 5-6 is similar to Table 5-4 except that only inquiries for which there is an identifiable motive are included. The overall R-square is relatively unaffected and the preparer type and the preparer x penalty interaction are both significant at alpha levels less then .01. The simple effect of penalty for CPAs (non-CPAs) is still in the hypothesized direction and slightly more significant as evidenced by the increase in the F ratio to 2.37 (5.86) and the decrease in the related p value from .0817 (.0244) to .0667 (.0100).

Similarly, Table 5-7 shows the results when the time measure is redefined. The overall R-square improves from .29 to .40 and the significance level of the preparer type x penalty interaction is increased from .0462 to .0015. Additionally, the simple effects of penalty for CPAs and non-CPAs are both significant at alpha levels less than .02 and .01, respectively, with both effects occurring in the hypothesized directions. Hypothesis $H1_a$ is thereby supported.

Finally, the analysis is repeated separately for tax-increasing and tax-decreasing items. Table 5-8 presents the effects of penalty level and preparer type on the inquiries made for tax-decreasing items. The overall R-square is approximately .26. Both the preparer type and the preparer x penalty interactions are significant indicating that the effect of the penalty was not consistent across preparer types. Tests of the simple effects of penalty for CPAs (non-CPAs) is able to reject the null hypothesis of no effect at significance levels of approximately .10 (01). Examination of the means reveals that the penalty resulted in changes in the hypothesized directions. The effects on time spent on tax-decreasing searches are presented in Table 5-9. The overall R-square is approximately 34 percent. Again, both the preparer type and the preparer x penalty interaction are significant. Simple tests at each level of preparer type reveal that the penalty significantly increases (decreases) the time spent by CPAs (non-CPAs) searching for tax-decreasing items. Hypothesis $H2_a$ is also supported.

Tables 5-10 and 5-11 show that the effect of the penalty on the effort spent searching for tax-increasing items is similar to the effort spent searching for tax-decreasing items. The direction of the effect, however, is contrary to that hypothesized in $H2_b$ and consistent with the changes in tax-decreasing items. This outcome will be discussed further below.

Finally, Table 5-12 shows the effects of penalty and preparer type on the time spent by subjects evaluating the ambiguous cases. Unlike the previous cases examining unambiguous items, preparer type was not significant in determining the time spent on ambiguous items. Penalty, however, was significant at an alpha level of approximately .02. As discussed below, while penalty level did not affect the aggressiveness of the subjects, it did apparently cause them to consider the situation longer.

The Effect of Penalty Threats on Preparer Aggressiveness

Hypothesis $H3_a$ involves the effect of penalties on preparer aggressiveness. To test the hypothesis a number of analyses were done. First, a test was done to see if the penalty level affected the actual positions taken for the ambiguous cases on the hypothetical return. Table 5-13 shows the results of an ANOVA with the total number of pro-taxpayer decisions made by each subject as the dependent variable and the preparer type and penalty level as the independent variables. While preparer type had a significant effect on the aggressiveness of positions taken on the return, the penalty level did not. Across penalty levels the average number of pro-taxpayer positions taken was 2.

Subjects were also asked how sure they were about the recommendation they would make in each case. The purpose of this rating (as opposed to the previous choice) was to see if the penalty level may have caused a change in the preparer's evaluation that may not be discernable given a dichotomous response variable.

Table 5-14 displays the results of an ANOVA with the subjects' rating of each case as the dependent variable. In each case, the subject rated his judgement about how sure he was of the proper way to handle the case. The response was rated on a scale of one to eleven with one being definitely pro-taxpayer (i.e., "would definitely deduct" or "would definitely not include in income") and eleven being definitely pro-IRS (i.e., "would definitely not deduct" or "would definitely include in income"). In addition to preparer type and penalty level, CASE is also an independent variable representing the difference in ratings due to the scenario presented. CASE is therefore repeated for each subject at five levels. Preparer type again influences the aggressiveness of the subjects' evaluations while penalty is not significant at any reasonable level. However, the penalty x case interaction is significant suggesting that the effect of penalty varies across cases.

Panel B of Table 5-14 gives the results of a separate analysis of variance for each case. Preparer type is significant in all but the first and last case. The penalty, however, affects the subjects' ratings only for the fifth case. In no case is the preparer x penalty interaction significant, suggesting that the effect of penalties on the subjects' aggressiveness is consistent across preparer types.

It appears then that there is little support for hypothesis $H3_a$. While preparer type influenced aggressiveness in ambiguous cases, the level of penalties did not affect the subjects' reporting decisions and only effected their aggressiveness ratings in one case.

Tests of Competing Hypotheses

Certain demographic variables have been found to affect taxpayer aggressiveness in prior research. These variables are considered here in the event they also affect the aggressiveness of professional preparers or they moderate the effect of penalties on preparers. Additionally, the fees charged by the subjects for preparing the return will be examined.

The moderating effects of gender

Prior research has shown that taxpayer aggressiveness may differ by gender. It is possible that gender also moderates the effect of penalties on the aggressiveness of professional preparers.[14] To determine if this is the case, gender was added to the previous analyses as an additional independent variable. The results of these tests are presented in Tables 5-15 and 5-16.

---

[14] The results may also be biased if the difference in aggressiveness across gender found in taxpayer studies extends to preparers, and if gender is not constant across penalty manipulations. To check for such a bias, a chi-square test was done to see if the frequency of males and females was different across penalty manipulations. The null hypothesis of no difference cannot be rejected at any

Table 5-15 shows that gender was marginally significant in determining the total number of pro-taxpayer choices made by subjects. No interaction involving gender with penalty or preparer type was significant, however. Gender was not significant in determining subjects' aggressiveness ratings of either individual cases or in total ratings.

Gender was more important in determining the level of effort exerted by preparers. Because the most revealing results are concerned with the measures of items with identifiable motives, the remaining results will be limited to those measures. Table 5-16 shows that gender, like penalty level, is consistently and significantly involved in an interaction with preparer type. However, the interaction of gender with penalty is not significant. Gender apparently does not moderate the effect of penalty threat on preparer effort.

The preparer type and preparer x penalty interaction both remain significant when gender is added to the analysis. The significance levels, however, are reduced.

---

reasonable significance level for the entire sample nor for either preparer type. The levels of the individual factors identified in the factor analysis were also tested across manipulations to ensure they were not confounded with the penalty level. In no case do the subjects in each condition differ on any factor at any reasonable significance level.

This is partly due to the relatively small cell sizes (as low as 5 in the CPA/female/high penalty cell) available when gender is added to the model. For this reason, while it may be interesting, it is not informative to test the simple effects of penalty for each preparer type while controlling for gender. The reduced significance of preparer type when gender is added may also be due partially to the correlation between preparer type and gender. Recall that CPAs were comprised predominantly of males while non-CPAs were predominantly females. In ANOVA procedures, the use of type III sums of squares results in any explained variance shared between two variables being allocated to neither variable. Therefore, the statistical tests of two correlated variables included in the same model would be expected to be biased downwards. While the significance levels are reduced, the fact that preparer type and the penalty x preparer type interaction continue to be significant even after gender is added to the model is evidence that preparer type and gender are not confounded.

The moderating effects of experience

Experience was also added to the analysis to see if it moderated the effect of penalty threats.[15] One possibility is that preparers with more experience would be more confident in their abilities to interpret the tax laws and serve clients so that any penalty threats would have a less pronounced effect on them. An alternative hypothesis, and one consistent with the model advanced here, would be that preparers learn the expectations of their clients and adopt the attitudes of their own professional group over time. The effect of penalty threats then would be more pronounced in the hypothesized directions for more experienced preparers. Subjects were broken up into high and low experience levels based on the midpoint of each preparer type. Using four years and three years of experience as the dividing point for non-CPAs and CPAs, respectively, the sample was split into four, nearly equal groups. After considering the penalty manipulation, cell sizes for the analysis were again reduced to as few as eight per cell, biasing the test results against rejecting the null hypothesis. The results of these tests are presented in Tables 5-17 through 5-19.

---

[15] To check for any confounding of age and experience with the penalty manipulation, two sets of t-tests were performed comparing age and experience across penalty manipulations. The null hypothesis of no difference could not be rejected at any reasonable significance level.

For CPAs, experience was found to moderate the effect of penalties on the aggressiveness of ambiguous choices. In tests of both total pro-taxpayer choices and total ratings presented in Table 5-17, the experience x penalty interactions were significant at alpha levels of approximately .05. Examination of the means indicates that the number of pro-taxpayer choices increased from 1 to 1.6

in the high-experience group while there was no increase in the low-experience group. Similarly, the total ratings in the high-experience group decreased (indicating more pro-taxpayer ratings) while ratings in the low-experience group did not. For non-CPAs, the penalty x experience interaction was not significant for either total choices or overall ratings.

Tests related to effort were restricted to items with identifiable effects on the preparers' wages. These results are presented in Tables 5-18 and 5-19. Again, due to the small cell sizes of approximately 10, the results are biased heavily against rejecting the null hypotheses. Experience was found to significantly affect the expected penalty level x preparer type interaction for the number of inquiries related to tax-decreasing items. Additionally, the penalty x preparer x experience effect was marginally significant for both measures of effort spent on tax-increasing items.

Simple tests for each experience level are also presented. In all cases, the penalty level x preparer type interaction was highly significant in the high experience condition. Examination of the means indicate that the moderating effect of experience was one of strength and not of form with all changes in the hypothesized directions and those in the high experience condition being greater. Hypothesis H4 is also supported.

Tests of order effects

So as not to confound the effects of interest with any effects of performing the effort and aggressiveness phases of the experiment in a particular order, the order in which subjects were presented the separate phases of the instrument were counterbalanced. Additionally, statistical tests were performed to determine if the order of presentation affected subjects' reactions. The results of these tests are presented in Tables 5-20 through 5-23.

When order was added to the model explaining the number of total pro-taxpayer decisions made by subjects, both the penalty x order and the two-way interaction involving penalty, preparer and order were significant. This suggests that the expected preparer x penalty interaction was moderated by the order in which the materials were presented to subjects. Simple tests were therefore performed for each order. When the effort phase of the instrument was presented to the subjects before the ambiguous cases, the only significant variable was preparer type. However, when the ambiguous cases were presented first, the predicted penalty x preparer interaction was significant. Examination of the means shows that the penalty caused CPAs to recommend more pro-taxpayer positions while non-CPAs recommended fewer pro-taxpayer positions. Order did not significantly affect the overall rating of the ambiguous cases made by subjects. These results are presented in Tables 5-20 and 5-21.

When order was added to the model to explain the level of preparer effort, the penalty x order effect as well as the penalty x preparer effect was consistently significant for all types of inquiries and all time measures. However, the penalty level x preparer type interaction is not moderated by the order of presentation as evidenced by the lack of any significant two way interactions involving order. A possible explanation of the order x penalty interaction and the moderating effect of order on preparer aggressiveness will be discussed in Chapter 6.

The fees charged by subjects

As discussed above, the fees charged for preparing the return differred significantly across preparer types. However, as shown in Table 5-24, the penalty threat had no effect on subjects' fees. Additionally, when added to the model as a covariate, fees were significant in determining neither preparer effort nor aggressivenss. Finally, adding fees to the original models did not change the significance of the penalty x preparer type interactions.

Summary

The results presented here provide little support for $H3_a$. There was no significant penalty x preparer interaction for any measure of preparer aggressiveness. Nor was there any main effect of penalty threat which suggests that penalties had no effect on the subjects' aggressiveness.

There was overwhelming support for $H1_a$, $H2_a$, and $H2_b$. The penalty x preparer interaction effect was consistently significant in determining the amount of effort invested in the overall task and in identifying and analyzing items with identifiable consequences on the calculated tax liability and therefore the preparer's wage. Simple effects tests of penalty level for each preparer type were also consistently significant. The direction of all effects was in the hypothesized directions.

H4 was intended to supply converging evidence regarding the source of subjects' motivations. H4 was also supported. The predicted interaction effects were more pronounced for preparers with more experience than for those with less experience.

Chapter 6 will review the results of the tests presented here in relation to the preparer model offered previously. Interpretations of the results, limitations, consequences, and potential for future research will also be discussed.

TABLE 5-1

Description of Sample

Panel A: Demographic data

Item	Overall	CPAs	Non-CPAs
Number of subjects	81	36	45
Age	42	27	50
Pr > t	.0000		
Experience	5	4	5.5
Pr > t	.0408		
Fee charged	$350	725	100
Pr > t	.0000		
Percentage Males	45%	61%	33%
Pr > chi-square	.0100		
My clients are primarily:			
large businesses		22%	2%
small-medium sized business		53%	7%
low-middle income wage earners		0%	39%
middle-income wage earners		11%	41%
wealthy individuals		14%	2%

TABLE 5-2

Test of Within Covariance Matrix for Discriminant Analysis

Classification Variable	Natural Log of Determinant of the Covariance Matrix
Non-CPAs	-0.446
CPAs	-2.674
Pooled	-0.507

Chi-Square = 66.082
Pr > Chi-Square = .0001

TABLE 5-3

Test of Penalty Manipulation

Dependent Variable: Rating of Magnitude of Experimental Penalty

Panel A: Univariate Test

Penalty Level	Mean Rating	T	Pr>t
No Penalty	3.119		
High Penalty	4.053	1.65	.1023

Panel B: Multivariate Test

Source	DF	Type III SS	F	Pr>F
Penalty Level	1	14.769	2.51	.118
Preparer Type	1	48.331	8.20	.005
Pen x Prep	1	0.011	.00	.966
Error	76	447.936		

Panel C: Mean Ratings

	No Penalty	High Penalty
CPAs	4.00	4.88
Non-CPAs	2.46	3.30
Overall Mean	2.87	4.08

TABLE 5-4

Test of Effect of Penalty Level on Preparer Effort Measured by Total Number of Inquiries

Panel A: Overall Test R-Square=.35

Source	DF	Type III SS	F	Pr>F
Penalty Level	1	8.431	.00	.9629
Preparer Type	1	135,448.375	34.98	.0001
Pen x Prep	1	22,157.277	5.71	.0193
Error	74	286,569.863		

Panel B: Test for Each Preparer Type

Source	DF	Type III SS	F	Pr>F
CPAs Only				
Penalty Level	1	9,900.250	2.03	.0817
Error	34	165,842.722		
Non-CPAs Only				
Penalty Level	1	12,459.431	4.13	.0244
Error	40	120,727.141		

Panel C: Cell Means

	No Penalty	High Penalty
CPAs	163.94	197.11
Non-CPAs	114.14	79.65
Overall Mean	136.55	135.29

Note: Simple-effects tests of penalty level for each preparer type correspond to uni-directional hypotheses. Accordingly, the p-values reported here are one-half of that normally reported for an F test and correspond to a one-tailed T test.

TABLE 5-5

Test of Effect of Penalty Level on Preparer Effort Measured by Total Time Spent on Task

Panel A: Overall Test R-Square=.26

Source	DF	Type III SS	F	Pr>F
Penalty Level	1	405,202.875	0.97	.3281
Preparer Type	1	8,712,763.257	20.84	.0001
Pen x Prep	1	1,718,017.824	4.11	.0462
Error	74	41,571,896.310		

Panel B: Test for Each Preparer Type

Source	DF	Type III SS	F	Pr>F
CPAs Only				
Penalty Level	1	1,762,384.578	2.87	.0497
Error	34	20,884,371.685		
Non-CPAs Only				
Penalty Level	1	245,894.317	.98	.1642
Error	40	10,051,946.229		

Panel C: Cell Means

	No Penalty	High Penalty
CPAs	1871.02	2313.54
Non-CPAs	1498.11	1344.90
Overall Mean	1665.92	1803.73

Note: Simple-effects tests of penalty level for each preparer type correspond to uni-directional hypotheses. Accordingly, the p-values reported here are one-half of that normally reported for an F test and correspond to a one-tailed T test.

TABLE 5-6

Test of Effect of Penalty Level on Preparer Effort Measured by Inquiries with Identifiable Motives

Panel A: Overall Test R-Square=.32

Source	DF	Type III SS	F	Pr>F
Penalty Level	1	41.540	.04	.8329
Preparer Type	1	25,769.543	27.80	.0001
Pen x Prep	1	6,883.154	7.43	.0080
Error	74	68,597.217		

Panel B: Test for Each Preparer Type

Source	DF	Type III SS	F	Pr>F
CPAs Only				
Penalty Level	1	2,721.361	2.37	.0667
Error	34	39,084.944		
Non-CPAs Only				
Penalty Level	1	4,324.870	5.86	.0100
Error	40	29,512.273		

Panel C: Cell Means

	No Penalty	High Penalty
CPAs	58.44	75.83
Non-CPAs	40.82	20.50
Overall Mean	48.75	46.71

Note: Simple-effects tests of penalty level for each preparer type correspond to uni-directional hypotheses. Accordingly, the p-values reported here are one-half of that normally reported for an F test and correspond to a one-tailed T test.

TABLE 5-7

Test of Effect of Penalty Level on Preparer Effort Measured by Time Spent on Items with Identifiable Motives

Panel A: Overall Test R-Square=.40

Source	DF	Type III SS	F	Pr>F
Penalty Level	1	52,968.796	.64	.4265
Preparer Type	1	3,134,819.462	37.84	.0001
Pen x Prep	1	902,770.410	10.90	.0015
Error	74	6,131,200.312		

Panel B: Test for Each Preparer Type

Source	DF	Type III SS	F	Pr>F
CPAs Only				
Penalty Level	1	647,469.669	4.89	.0169
Error	34	4,498,910.704		
Non-CPAs Only				
Penalty Level	1	280,451.537	6.87	.0062
Error	280	3211.471		

Panel C: Cell Means

	No Penalty	High Penalty
CPAs	516.89	785.11
Non-CPAs	330.45	166.84
Overall Mean	414.35	459.70

Note: Simple-effects tests of penalty level for each preparer type correspond to uni-directional hypotheses. Accordingly, the p-values reported here are one-half of that normally reported for an F test and correspond to a one-tailed T test.

TABLE 5-8

Test of Effect of Penalty Level on Preparer Effort Measured by Inquiries with Tax-Decreasing Motives

Panel A: Overall Test   R-Square=.26

Source	DF	Type III SS	F	Pr>F
Penalty Level	1	88.693	.14	.7134
Preparer Type	1	12,921.720	19.80	.0001
Pen x Prep	1	4,056.468	6.22	.0149
Error	74	48,281.396		

Panel B: Test for Each Preparer Type

Source	DF	Type III SS	F	Pr>F
CPAs Only				
Penalty Level	1	1,369.000	1.78	.0956
Error	34	26,174.556		
Non-CPAs Only				
Penalty Level	1	2,891.564	5.23	.0138
Error	40	22,106.841		

Panel C: Cell Means

	No Penalty	High Penalty
CPAs	45.72	58.06
Non-CPAs	34.36	17.75
Overall Mean	38.86	36.75

Note: Simple-effects tests of penalty level for each preparer type correspond to uni-directional hypotheses. Accordingly, the p-values reported here are one-half of that normally reported for an F test and correspond to a one-tailed T test.

TABLE 5-9

Test of Effect of Penalty Level on Preparer Effort Measured by Time Spent on Tax-Decreasing Items

Panel A: Overall Test R-Square=.34

Source	DF	Type III SS	F	Pr>F
Penalty Level	1	32,327.297	.47	.4942
Preparer Type	1	198,176.385	28.93	.0001
Pen x Prep	1	595,408.068	8.69	.0043
Error	74	5,068,614.990		

Panel B: Test for Each Preparer Type

Source	DF	Type III SS	F	Pr>F
CPAs Only				
Penalty Level	1	420,716.553	3.63	.0326
Error	34	3,935,605.809		
Non-CPAs Only				
Penalty Level	1	189,493.336	6.69	.0067
Error	40	1,133,009.181		

Panel C: Cell Means

	No Penalty	High Penalty
CPAs	415.36	631.57
Non-CPAs	270.81	136.31
Overall Mean	330.21	374.36

Note: Simple-effects tests of penalty level for each preparer type correspond to uni-directional hypotheses. Accordingly, the p-values reported here are one-half of that normally reported for an F test and correspond to a one-tailed T test.

TABLE 5-10

Test of Effect of Penalty Level on Preparer Effort Measured by Inquiries with Tax-Increasing Motives

Panel A: Overall Test R-Square=.44

Source	DF	Type III SS	F	Pr>F
Penalty Level	1	8.836	.21	.6519
Preparer Type	1	2,195.410	50.99	.0001
Pen x Prep	1	371.501	8.63	.0044
Error	74	3,185.927		

Panel B: Test for Each Preparer Type

Source	DF	Type III SS	F	Pr>F
CPAs Only				
Penalty Level	1	230.028	3.56	.0314
Error	34	2,198.722		
Non-CPAs Only				
Penalty Level	1	143.772	5.83	.0102
Error	40	987.205		

Panel C: Cell Means

	No Penalty	High Penalty
CPAs	12.72	17.78
Non-CPAs	6.45	2.75
Overall Mean	9.27	9.87

Note: Simple-effects tests of penalty level for each preparer type correspond to uni-directional hypotheses. Accordingly, the p-values reported here are one-half of that normally reported for an F test and correspond to a one-tailed T test.

TABLE 5-11

Test of Effect of Penalty Level on Preparer Effort Measured by Time Spent on Tax-Increasing Items

Panel A: Overall Test R-Square=.35

Source	DF	Type III SS	F	Pr>F
Penalty Level	1	2,535.281	.63	.4314
Preparer Type	1	131,617.794	32.50	.0001
Pen x Prep	1	31,867.753	7.87	.0064
Error	74	299,711.362		

Panel B: Test for Each Preparer Type

Source	DF	Type III SS	F	Pr>F
CPAs Only				
Penalty Level	1	24,344.841	4.26	.0234
Error	34	194,515.763		
Non-CPAs Only				
Penalty Level	1	8,886.537	3.38	.0368
Error	40	105,195.600		

Panel C: Cell Means

	No Penalty	High Penalty
CPAs	101.53	153.54
Non-CPAs	59.65	30.53
Overall Mean	78.50	88.79

Note: Simple-effects tests of penalty level for each preparer type correspond to uni-directional hypotheses. Accordingly, the p-values reported here are one-half of that normally reported for an F test and correspond to a one-tailed T test.

TABLE 5-12

Test of Effect of Penalty Level on Preparer Effort Measured by Time Spent on Ambiguous Items

Panel A: Overall Test R-Square=.10

Source	DF	Type III SS	F	Pr>F
Penalty Level	1	382,841.609	6.67	.0117
Preparer Type	1	2,392.272	.04	.8387
Pen x Prep	1	58,503.264	1.02	.3157
Error	74	4,417,597.594		

Panel B: Cell Means

	No Penalty	High Penalty
Overall Mean	532.666	676.63

TABLE 5-13

Test of the Effects of Penalty Level on Aggressiveness Measured by Total Pro-Taxpayer Positions Taken on Return

Panel A: Analysis of Variance R-Square=.28

Source	DF	Type III SS	F	Pr>F
Penalty Level	1	0.004	.00	.9512
Preparer Type	1	28.801	28.53	.0001
Pen x Prep	1	0.186	.18	.6686
Error	76	76.722		

Panel B: Cell Means

	No Penalty	High Penalty
CPAs	1.28	1.39
Non-CPAs	2.58	2.50
Overall Mean	2.02	1.97

TABLE 5-14

Test of the Effect of Penalty Level on Aggressiveness Measured by Subjects' Ratings of Ambiguous Cases

Panel A: All Cases

Source	DF	Type III SS	F	Pr>F
Within-Subject Effect				
Case	4	782.856	17.54	.0001
Case x Pen	4	89.471	2.00	.0938
Case x Pen x Prep	4	33.510	.75	.5581
Error	304	3391.966		
Between-Subject Effects				
Penalty Level	1	1.199	.07	.7978
Preparer Type	1	275.161	15.16	.0002
Pen x Prep	1	1.453	.08	.7779
Error	76	1379.020		

Panel B: Individual Cases

Source	DF	Type III SS	F	Pr>F
Case One				
Penalty Level	1	23.270	1.66	.2012
Preparer Type	1	0.396	.03	.8669
Pen x Prep	1	1.808	.13	.7203
Error	76	1,063.672		
Case Two				
Penalty Level	1	1.842	.16	.6947
Preparer Type	1	190.928	16.09	.0001
Pen x Prep	1	0.381	.03	.8583
Error	76	901.694		
Case Three				
Penalty Level	1	1.792	.16	.6903
Preparer Type	1	81.891	7.31	.0085
Pen x Prep	1	1.892	.17	.6822
Error	76	851.297		
Case Four				
Penalty Level	1	33.694	2.19	.1433
Preparer Type	1	156.653	10.17	.0021
Pen x Prep	1	23.210	1.51	.2234
Error	76	1,170.536		
Case Five				
Penalty Level	1	30.073	2.92	.0918
Preparer Type	1	5.466	.53	.4688
Pen x Prep	1	7.671	.74	.3911
Error	76	783.786		

TABLE 5-15

Test of Moderating Effects of Gender on Aggressiveness

Panel A: Total Pro-Taxpayer Choices

Source	DF	Type III SS	F	Pr>F
Penalty Level	1	.090	.09	.7652
Preparer Type	1	31.443	31.41	.0001
Pen x Prep	1	0.006	0.01	.9378
Gender	1	3.087	3.08	.0833
Gen x Pen	1	0.610	.61	.4375
Gen x Prep	1	0.263	.26	.6096
Gen x Pen x Prep	1	0.867	.87	.3550
Error	72	72.066		

Panel B: Total Aggressiveness Ratings

Source	DF	Type III SS	F	Pr>F
Penalty Level	1	7.804	.08	.7749
Preparer Type	1	1,228.634	12.97	.0006
Pen x Prep	1	1.643	.02	.8956
Gender	1	4.685	.05	.8246
Gen x Pen	1	0.746	.01	.9295
Gen x Prep	1	57.267	.60	.4394
Gen x Pen x Prep	1	7.547	.08	.7786
Error	72	6,820.752		

Panel C: Cell Means

	Pro-Taxpayer Choices	Overall Ratings
Males	2.03	33.89
Females	1.98	31.95

TABLE 5-15--continued

Panel D: Aggressiveness Ratings by Case

Source	DF	Type III SS	F	Pr>F
Within-Subject Effect				
Case	4	688.891	15.54	.0001
Case x Pen	4	75.468	1.70	.1494
Case x Pen x Prep	4	34.147	.77	.5452
Case x Gender	4	89.542	2.02	.0917
Case x Pen x Gen	4	60.277	1.36	.2479
Case x Pen x Prep x Gen	4	23.947	.54	.7062
Error	288	3,191.157		
Between-Subject Effects				
Penalty Level	1	1.561	.08	.7749
Preparer Type	1	245.727	12.97	.0006
Pen x Prep	1	0.329	.02	.8956
Gender	1	.937	.05	.8246
Gen x Pen	1	.149	.01	.9295
Gen x Prep	1	11.453	.60	.4394
Gen x Pen x Prep	1	1.509	.08	.7786
Error	72	1,364.150		

TABLE 5-16

Test of Moderating Effect of Gender on Preparer Effort

Panel A: Inquiries with Tax-Decreasing Motives

Source	DF	Type III SS	F	Pr>F
Penalty Level	1	324.640	.51	.4778
Preparer Type	1	10,722.391	16.82	.0001
Pen x Prep	1	2,633.781	4.13	.0459
Gender	1	286.150	.45	.5050
Gen x Prep	1	3,307.222	5.19	.0258
Gen x Pen	1	108.777	.17	.6806
Gen x Prep x Pen	1	15.409	.02	.8769
Error	70	44,617.419		

Panel B: Time with Tax-Decreasing Motives

Source	DF	Type III SS	F	Pr>F
Penalty Level	1	6,494.786	.10	.7558
Preparer Type	1	15,066,666.491	22.61	.0001
Pen x Prep	1	351,260.740	5.27	.0247
Gender	1	132,817.147	1.99	.1625
Gen x Prep	1	266,049.113	3.99	.0496
Gen x Pen	1	31,487.763	.47	.4941
Gen x Prep x Pen	1	1,723.261	.03	.8727
Error	70	4,665,522.337		

TABLE 5-16--continued

Panel C: Inquiries with Tax-Increasing Motives

Source	DF	Type III SS	F	Pr>F
Penalty Level	1	0.140	.00	.9524
Preparer Type	1	1,648.337	42.41	.0001
Pen x Prep	1	189.006	4.86	.0307
Gender	1	192.392	4.95	.0293
Gen x Prep	1	287.948	7.41	.0082
Gen x Pen	1	20.943	.54	.4654
Gen x Prep x Pen	1	0.995	.03	.8734
Error	70	2,720.532		

Panel D: Time with Tax-Increasing Motives

Source	DF	Type III SS	F	Pr>F
Penalty Level	1	285.136	.08	.7801
Preparer Type	1	88,306.085	24.32	.0001
Pen x Prep	1	13,568.003	3.74	.0573
Gender	1	22,766.023	6.27	.0146
Gen x Prep	1	22,333.133	6.15	.0156
Gen x Pen	1	5,342.175	1.47	.2293
Gen x Prep x Pen	1	0.111	.00	.9956
Error	70	254,212.248		

TABLE 5-17

Test of Moderating Effects of Experience on Aggressiveness

Panel A: Total Pro-Taxpayer Choices

Source	DF	Type III SS	F	Pr>F
CPAs Only				
Penalty Level	1	0.022	.04	.8399
Experience	1	0.050	.09	.7620
Exp x Pen	1	2.689	5.02	.0322
Error	32	17.150		
Non-CPAs Only				
Penalty Level	1	0.050	.04	.8509
Experience	1	0.249	.18	.6765
Exp x Pen	1	0.249	.18	.6765
Error	40	56.379		

Panel B: Cell Means

	CPAs		Non-CPAs	
	Penalty		Penalty	
	Low	High	Low	High
Experience				
Low	1.62	1.12	2.58	2.36
High	1.00	1.60	2.58	2.67
Overall	1.28	1.39	2.58	2.50

TABLE 5-17--continued

Panel C: Total Aggressiveness Ratings

Source	DF	Type III SS	F	Pr>F
CPAs Only				
Penalty Level	1	1.512	.04	.8445
Experience	1	1.335	.03	.8538
Exp x Pen	1	157.735	4.08	.0519
Error	32	1,237.875		
Non-CPAs Only				
Penalty Level	1	24.370	.19	.6651
Experience	1	372.863	2.91	.0957
Exp x Pen	1	9.703	.08	.7846
Error	40	5,123.684		

Panel D; Cell Means

	CPAs		Non-CPAs	
	Penalty		Penalty	
Experience	Low	High	Low	High
Low	35.37	40.00	26.08	26.63
High	39.20	35.00	31.00	33.44
Overall	37.50	37.44	28.54	29.70

TABLE 5-18

Test of Moderating Effects of Experience on Effort Measured by Items with Tax-Decreasing Motives

Panel A: Inquiries R-Square=.31

Source	DF	Type III SS	F	Pr>F
Penalty Level	1	194.341	.30	.5843
Preparer Type	1	13,237.775	20.58	.0001
Pen x Prep	1	4,315.504	6.71	.0117
Experience	1	308.919	.48	.4906
Pen x Exp	1	671.309	1.04	.3105
Prep x Exp	1	8.960	.01	.9064
Pen x Prep x Exp	1	2,109.751	.01	.0745
Error	70	45,035.001		

Panel B: Tests for Each Level of Experience

Source	DF	Type III SS	F	Pr>F
Low Experience				
Penalty Level	1	70.520	.11	.7377
Preparer Type	1	6,859.935	11.09	.0021
Pen x Prep	1	192.216	.31	.5808
Error	35	21,657.212		
High Experience				
Penalty Level	1	806.703	1.21	.2793
Preparer Type	1	6,379.244	9.55	.0039
Pen x Prep	1	6,329.514	9.48	.0040
Error	35	23,377.789		

Panel C: Cell Means

	CPAs		Non-CPAs	
	Penalty		Penalty	
Experience	Low	High	Low	High
Low	50.88	58.12	28.42	26.64
High	41.60	58.00	41.50	6.89

TABLE 5-18--continued

Panel D: Time R-Square=.36

Source	DF	Type III SS	F	Pr>F
Penalty Level	1	28,369.700	.40	.5269
Preparer Type	1	1,974,239.877	28.14	.0001
Pen x Prep	1	646,680.387	9.22	.0034
Experience	1	1,716.039	.02	.8762
Pen x Exp	1	132,032.597	1.88	.1745
Prep x Exp	1	2,404.563	.03	.8536
Pen x Prep x Exp	1	15,898.252	.23	.6355
Error	70	7,623,148.498		

Panel E: Tests for Each Level of Experience

Source	DF	Type III SS	F	Pr>F
Low Experience				
Penalty Level	1	139,215.092	2.33	.1360
Preparer Type	1	905,193.245	15.14	.0004
Pen x Prep	1	226,335.743	3.79	.0598
Error	35	2,092,892.735		
High Experience				
Penalty Level	1	19,302.240	.24	.6274
Preparer Type	1	1,074,106.421	13.34	.0008
Pen x Prep	1	439,595.221	5.46	.0008
Error	38	1,000,762.135		

Panel F: Cell Means

	CPAs		Non-CPAs	
	Penalty		Penalty	
Experience	Low	High	Low	High
Low	384.28	660.72	229.36	195.94
High	440.23	608.25	320.53	63.43

TABLE 5-19

Test of Moderating Effects of Experience on Effort Measured by Items with Tax-Increasing Motives

Panel A: Inquiries R-Square=.47

Source	DF	Type III SS	F	Pr>F
Penalty Level	1	3.511	.08	.7767
Preparer Type	1	2,160.974	49.90	.0001
Pen x Prep	1	345.448	7.98	.0062
Experience	1	.547	.01	.9108
Pen x Exp	1	25.070	.58	.4493
Prep x Exp	1	37.860	.87	.3530
Pen x Prep x Exp	1	99.650	3.30	.1338
Error	70	3,031.659		

Panel B: Tests for Each Level of Experience

Source	DF	Type III SS	F	Pr>F
Low Experience				
Penalty Level	1	4.832	.10	.7528
Preparer Type	1	800.797	15.96	.0003
Pen x Prep	1	36.440	.73	.3999
Error	35	1,756.136		
High Experience				
Penalty Level	1	24.051	.66	.4221
Preparer Type	1	1,407.575	38.62	.0001
Pen x Prep	1	414.602	11.38	.0018
Error	35	1,275.522		

Panel C: Cell Means

	CPAs		Non-CPAs	
	Penalty		Penalty	
Experience	Low	High	Low	High
Low	13.75	15.00	6.50	3.82
High	11.90	20.00	6.40	1.44

TABLE 5-19--continued

Panel D: Inquiries R-Square=.43

Source	DF	Type III SS	F	Pr>F
Penalty Level	1	1,644.431	.44	.5104
Preparer Type	1	121,660.830	32.38	.0001
Pen x Prep	1	28,838.187	7.67	.0072
Experience	1	11,489.544	3.06	.0847
Pen x Exp	1	4,708.394	1.25	.2668
Prep x Exp	1	15,773.161	4.20	.0442
Pen x Prep x Exp	1	7,502.894	2.00	.1621
Error	70	263,037.776		

Panel E: Tests for Each Level of Experience

Source	DF	Type III SS	F	Pr>F
Low Experience				
Penalty Level	1	387.759	.13	.7234
Preparer Type	1	24,525.354	8.05	.0075
Pen x Prep	1	3,407.461	1.12	.2974
Error	35	106,603.870		
High Experience				
Penalty Level	1	6.054.138	1.35	.2524
Preparer Type	1	114,320.164	25.58	.0001
Pen x Prep	1	33,405.168	7.47	.0098
Error	35	156,434.206		

Panel F: Cell Means

	CPAs		Non-CPAs	
	Penalty		Penalty	
	Low	High	Low	High
Experience				
Low	91.68	104.28	59.69	34.27
High	109.40	192.94	59.60	25.95

TABLE 5-20

Test for Order Effects on Preparer Aggressiveness Measured by Total Pro-Taxpayer Positions Taken

Panel A: Overall Test R-Square=.35

Source	DF	Type III SS	F	Pr>F
Penalty Level	1	0.008	.01	.9251
Preparer Type	1	28.961	30.47	.0001
Pen x Prep	1	0.327	.34	.5596
Order	1	.111	.12	.7344
Prep x Order	1	1.476	1.55	.2168
Pen x Order	1	2.576	2.71	.1041
Pen x Prep x Ord	1	3.751	3.95	.0508
Error		68.428		

Panel B: Test for Each Order

Source	DF	Type III SS	F	Pr>F
Effort First				
Penalty Level	1	1.465	1.54	.2227
Preparer Type	1	22.135	23.24	.0001
Pen x Prep	1	.948	1.00	.3249
Error	37	35.244		
Aggressiveness First				
Penalty Level	1	1.125	1.19	.2834
Preparer Type	1	8.535	9.00	.0049
Pen x Prep	1	3.092	3.26	.0795
Error	35	33.184		

Panel C: Cell Means

	CPAs		Non-CPAs	
	Penalty		Penalty	
Order	Low	High	Low	High
Effort	1.12	1.20	2.31	3.00
Aggress	1.40	1.62	2.91	2.00

TABLE 5-21

Test for Order Effects on Preparer Aggressiveness Measured by Total Aggressiveness Ratings

Panel A: Overall Test R-Square=.20

Source	DF	Type III SS	F	Pr>F
Penalty Level	1	5.868	.06	.8020
Preparer Type	1	1,412.722	15.25	.0002
Pen x Prep	1	12.061	.13	.7193
Order	1	13.025	.14	.7088
Prep x Order	1	13.204	.14	.7069
Pen x Order	1	135.162	1.46	.2310
Pen x Prep x Ord	1	47.975	.52	.4740
Error	74	299,711.362		

TABLE 5-22

Test for Order Effects on Preparer Effort Measured by Items with Tax-Decreasing Motives

Panel A: Inquiries R-Square=.32

Source	DF	Type III SS	F	Pr>F
Penalty Level	1	49.979	.08	.7791
Preparer Type	1	14,249.688	32.60	.0001
Pen x Prep	1	3,778.503	5.99	.0169
Order	1	8.035	.01	.9104
Prep x Order	1	3.074	.00	.9445
Pen x Order	1	3,980.333	6.31	.0143
Pen x Prep x Ord	1	303.375	.48	.4902
Error	70	44,127.681		

Panel B: Time R-Square=.42

Source	DF	Type III SS	F	Pr>F
Penalty Level	1	48,088.254	.76	.3852
Preparer Type	1	2,185,871.809	34.71	.0001
Pen x Prep	1	583,662.871	9.27	.0003
Order	1	12,725.364	.20	.6545
Prep x Order	1	54,821.460	.87	.3540
Pen x Order	1	501,366.037	7.96	.0062
Pen x Prep x Ord	1	127,262.449	2.02	.1596
Error	70	4,408,608.398		

TABLE 5-23

Test for Order Effects on Preparer Effort
Measured by Items with Tax-Increasing Motives

Panel A: Inquiries R-Square=.49

Source	DF	Type III SS	F	Pr>F
Penalty Level	1	13.614	.33	.5676
Preparer Type	1	2,350.008	56.93	.0001
Pen x Prep	1	337.680	8.18	.0056
Order	1	12.050	.29	.5907
Prep x Order	1	10.581	.26	.6143
Pen x Order	1	246.673	5.98	.0170
Pen x Prep x Ord	1	35.083	.85	.3598
Error	70	2,889.756		

Panel B: Time R-Square=.41

Source	DF	Type III SS	F	Pr>F
Penalty Level	1	3,425.831	.88	.3527
Preparer Type	1	142,644.417	36.45	.0001
Pen x Prep	1	29,010.032	7.41	.0082
Order	1	47.397	.01	.9127
Prep x Order	1	453.038	.12	.7347
Pen x Order	1	25,096.230	6.41	.0136
Pen x Prep x Ord	1	270.318	.07	.7935
Error	70	273,923.613		

TABLE 5-24

Test of the Effects of Penalty Level and Preparer Type on Fees

Analysis of Variance R-Square=.79

Source	DF	Type III SS	F	Pr>F
Penalty Level	1	0.011	.00	.9495
Preparer Type	1	286.354	292.70	.0001
Pen x Prep	1	2.530	.94	.3349
Error	77	206.862		

CHAPTER 6
SUMMARY AND CONCLUSIONS

Introduction

The final chapter summarizes the results of the statistical tests detailed in Chapter 5 and discusses them in relation to the hypotheses developed in Chapter 3. Potential limitations will be addressed and directions for future research will be discussed.

Summary and Discussion of Results

Description of Subjects

Practitioners in the study uniformly believed not only that the tax laws were unfair but that the IRS enforces and administers the law unfairly. However, neither CPAs nor non-CPAs thought that their clients were treated systematically better or worse than other taxpayers. Both subject groups rated themselves above their IRS counterparts in their ability to interpret and apply the tax laws while CPAs rated themselves relatively higher in relation to the IRS than did non-CPAs.

In applying the law, non-CPAs saw themselves as being more affected by the interpretations and pronouncements of the administration than did CPAs. Relatedly, CPAs reported taking more aggressive positions on returns they prepared than did non-CPAs. They also rated their clients as more aggressive than non-CPAs rated their clients. When asked to compare themselves directly to the other group, both rated themselves as equally aggressive and more competent. While both groups indicated they believed their primary responsibility was to their clients rather than to the government, CPAs rated their client responsibility greater than did non-CPAs.

A factor analysis performed with the responses to the above questions suggested that the subjects' attitudes and opinions could be consistently and systematically described by the following factors: (1) perceptions regarding the fairness and complexity of the tax laws and the administration which give rise to preparers' behavior, (2) subjects' views regarding their own role in dealing with taw law fairness and complexity, (3) views regarding client advocacy and how such advocacy manifests itself in the tax return, (4) views regarding their personal satisfaction derived from serving clients, and (5) opinions regarding the expected effects of sanctions on the preparer-client relationship. These attitude patterns are consistent with the attitudes which have been identified in the literature as necessary to arouse reactance. The first two factors deal with the perceived legitimacy of the sanction threat while the last three deal with the importance of the threatened behavior itself.

The discriminant analysis showed that the identified attitude patterns were not held consistently across all preparers and could be used to successfully categorize preparers as CPAs or non-CPAs. This suggests that the hypothesized differences in attitudes exist across preparer types and may result in differential reactions to sanction threats.

The Hypotheses

The first two hypotheses deal with the effect of sanction threats on the level of effort exerted by professional preparers in searching for and identifying tax reporting positions. Effort was measured as the time spent on the preparation task and as the number of inquiries made of the hypothetical client.

It appears that the effect of the penalty threat on the number of inquiries made by subjects was not consistent across preparer types. This outcome was evidenced by the significant penalty by preparer interaction effect on the total number of inquiries which had identifiable effects on the taxpayer's liability. Simple effects tests of the penalty level for each preparer type showed that the penalty threat significantly increased (reduced) the number of all types of inquiries made by CPAs (non-CPAs).

The effect of penalty threats on the time spent on the task was not consistent across preparer types either. The penalty by preparer interaction was significant in determining the total time spent on all items with identifiable consequences. Simple effects tests of penalty for each type of preparer indicated that CPAs (non-CPAs) significantly increased (decreased) the time spent on all types of items. This outcome is consistent with the hypotheses.

Taken together, the results of the above tests suggest that penalties caused non-CPAs to reduce the level of effort expended to identify unambiguous items which might reduce the taxpayer's liability, and therefore reduce the subjects' wage. Both outcomes are consistent with the predictions of the economic model presented in Chapter 3. However, CPAs actually increased their effort spent in identifying such items. While this is inconsistent with a pure economic model, it is consistent with the moderating effects of the attitudinal model presented in Chapter 3 and the attitude patterns identified by the discriminant analysis in Chapter 5. The attitudes held by the subjects served to moderate the effects of penalty threats with the moderating effect being one of direction and not just strength. The boomerang effect referred to in the psychological reactance literature was observed.

When examining the aggressiveness of recommendations made by subjects, preparer type was consistently significant. Penalty level, however, was significant in only one of the five separate cases presented to subjects and the penalty by preparer interaction was not significant in any case. When experience was added to the model, the experience by penalty interaction for CPAs was significant with experienced CPAs' reacting more strongly than less-experienced CPAs and reacting in the hypothesized direction. Therefore, there seems to be only limited evidence that penalty threats may result in a boomerang effect on preparer aggressiveness. The effect is present for only one group--more experienced CPAs.

Observance of the boomerang effect of penalties on preparer effort (and to a much lesser extent on aggressiveness) is important in interpreting the results. While it supports the hypotheses generated by the comprehensive model of Chapter 3, it also rules out any competing, economic hypotheses. While there may be economic motives for preparers not to respond at all to penalty threats (e.g., fear of reductions in long-term wages if decreases in effort levels or aggressiveness are detected by clients), there is no economic explanation for responding to increased penalties by being more aggressive or searching harder for tax-reducing items. The boomerang effect seems only explainable by non-economic factors.

The importance of the experience level also supports the hypotheses. When experience was added to the model, experience improved the explanatory power of the entire model as well as increased the significance of the penalty manipulation. This outcome could result merely from the reduction in error variance explained by experience. However, experience also moderated the effect of penalties as evidenced by the significant experience by penalty interactions in the cases of the number of pro-taxpayer choices and the aggressiveness ratings of CPAs. The two-way interaction involving experience, penalty level and preparer type was also significant when explaining the number of inquiries related to tax-decreasing items and marginally significant when explaining the time and effort spent on tax-increasing items. The expected penalty by preparer interaction effect was much stronger on all measures of effort for experienced preparers than for less-experienced preparers. The more experienced group would be more aware of client expectations and have developed more strongly their group's role prescriptions, thus apparently strengthening the effects suggested by the attitudinal model.

The interaction of the order of presentation of the experimental phases with the penalty manipulation was unforeseen. It may be consistent with the model, however. CPAs reacted more strongly to the penalties when they were immediately faced with making decisions that might subject them to the penalty. This outcome may have served to heighten the salience of the penalty threat and increased the reactance arousal. As non-CPAs were acting more in accordance with economic theory, this same reaction did not occur.

The stronger effects of the penalty on effort (than on aggressiveness) is consistent with the economic model. Since aggressiveness has no direct costs for the preparer, a reduction in effort results in more savings for the preparer (than does a reduction in aggressiveness) when the preparer is faced with an increase in penalties. For non-CPAs who were expected to adhere more closely to the economic model, the effects of penalties were much stronger on effort than on aggressiveness. An alternative explanation for this effect could be that the penalty merely did not affect their interpretation of the proper treatment of the ambiguous items. In either case the result is a change in effort levels supplied by preparers rather than a change in preparers interpretations of ambiguous issues which was intended by the government.

Finally, the effects of penalties on the search for tax-increasing items is consistent with that for tax-decreasing items. Recall that tax-decreasing items are not ordinarily reported to the taxpayer by third parties. It was argued therefore that an increase in search effort would result in proportionately more tax-decreasing items being discovered than tax-increasing items and that an increase in effort would be expected to have a net reduction in the preparer's wage. The predictions made regarding the effect of penalties on search effort were based on this relationship. It was hypothesized that penalties would have an opposite effect on the search for items that were expected to increase the reported tax liability than on items expected to decrease the liability. However, it appears that rather than having an opposite effect on tax-increasing items, the net effect of penalties on search effort may spill over to tax-increasing items as well as tax-decreasing items. If this is the case, increased penalty threats may reduce the effort exerted by some preparers in searching for and identifying otherwise unreported income items. It is also possible, that due to the relative effects of penalties in the experimental task and in the real world, preparers did not make the same distinction between tax-decreasing and tax-increasing items in the task that they would in the real world and that the consistency found in the experiment may not be generalizable.

Contributions and Implications

Research Contributions

The approach used by the government to deal with perceived over-aggressiveness of preparers has been to adopt stronger preparer penalties and reconsider the standard of reporting to which preparers must adhere. In the process, the government's attention to the matter has caused increased tension on behalf of preparers who believe that their perceived role in the system is being questioned and that they are being attacked for doing what they see as their job. There is currently little evidence regarding the success of penalty threats in moderating the behavior of professional preparers.

This research addresses the issue of penalty threats and professional preparers by developing a more comprehensive model of the preparer which integrates relationships found in economic models with previously suggested environmental and contextual factors. Additionally, the research considers the differences which exist in the preparer community when modelling the preparer. While there is much conjecture regarding differences in preparer types and some state-descriptive surveys which attempt to identify those differences, the differences have typically been ignored in most research to date. Finally, the relevant issues related to preparer sanctions are broadened to include not only their effect on compliance and aggressiveness but also their effect on the effort expended by preparers to reduce their clients' tax liabilities.

The economic model presented here suggests not only that such penalties would be effective in deterring aggressiveness but that they may also cause preparers to be less willing to invest in reducing taxpayers' liabilities resulting from unambiguous items due to the potential effect on their wage. When contextual and attitudinal factors were considered it was suggested that some preparers might adhere more closely to the predictions of an economic model while others respond to penalty threats differently. This research contributes to the literature by developing a much more comprehensive model of the preparer than previously available.

The experimental task performed by the subjects in this study was designed to resemble the task actually performed by preparers when advising clients and preparing returns. It allowed interaction between the subjects and the hypothetical taxpayer and allowed the preparer to invest as much time and energy in the issues as they felt necessary or desired. The task was rated as being very realistic by all subject types. It is believed that the realism of the task was an important contribution of the study and lends more external, as well as internal, validity to the results.

The results of this experiment support the more comprehensive model of the preparer advanced here. Non-CPAs faced with increased penalty threats reduced their investment in minimizing the reported tax liability while CPAs faced with the same threat actually increased such investment. The expected effect of penalties on aggressiveness, however, was not significant. These responses cannot be explained by economic motives and they point out the importance of considering the attitudes and role-prescriptions of professionals when considering certain types of regulation or sanctions.

The findings in this study are consistent with certain prior findings. For example, O'Neil and Collins [1989] found that small-firm preparers admitted to recommending fewer aggressive positions to their clients as a result of recent changes in preparer penalties. Conversely, Kaplan, et al. [1988], looking solely at Big Six preparers, found that the aggressiveness of recommendations made by experienced preparers was not reduced by economic variables.

The Kaplan et al. finding, however, may have been due to a number of explanations. The authors argue that experienced preparers have well developed schemas for handling tax problems and will be relatively unaffected by environmental conditions. This explanation, however, would not explain the current findings nor the findings of O'Neil and Collins. The two findings together, however, are consistent with the model advanced here. Also, since Kaplan et al.'s manipulation was not related to an emotionally charged issue, the possibility of increased aggressiveness due to the manipulation would not be predicted in that setting.

Other researchers have also failed to find effects of economic factors on CPA preparer aggressiveness. For example, Duncan et al. [1989] found no effect of the probability of audit on preparer aggressiveness. However, in that study subjects considered tax shelter issues which may be subject to very high actual audit probabilities making the salience of the manipulation questionable.

The current findings appear inconsistent with Milliron [1987]. Her CPA subjects felt that preparer penalties were one of the most important factors influencing their recommendations to clients. This outcome suggests that such penalties would lead to less aggressive positions. However, that study implicitly dealt with existing penalties rather than a threatened change in the penalty structure. The effects of possible changes to the status quo were not examined.

Several researchers have also examined the effects of client bases and/or client attitudes on the aggressiveness of preparer recommendations. Helleloid [1989] and Duncan et al. [1989] both manipulated the hypothetical client's attitude toward risk in a laboratory setting. They each found that CPAs moderated the aggressiveness of aggressive clients. Both of these studies have two potential problems. First, they both examined only CPAs who may all have clients with similar expectations. It is questionable whether the priors of subjects regarding their clients' expectations can be manipulated effectively in a laboratory. Secondly, both studies confound the client's attitude with the appropriateness of the hypothetical deduction. Helleloid found that preparers made less aggressive recommendations for aggressive clients when their documentation was more ambiguous. While this finding seems to suggest that preparers may moderate the aggressiveness of clients rather than internalize it, it may also reflect the interaction of the client attitude with the type of ambiguity. Ambiguous documentation may lead to reduced confidence in an aggressive client's assertions. It is difficult, therefore, to draw a parallel between the current research and that of Helleloid.

Duncan et al. [1989] also found that more aggressive clients led to more conservative recommendations by preparers. However, the same problems affecting the interpretation of Helleloid [1989] are present. Duncan et al.'s subjects dealt with tax shelter deductions and were told that the client himself questioned the appropriateness of the deduction. Given that an aggressive client questioned the deduction, client aggressiveness may have been an indicator of the appropriateness of the deduction as well as of client attitudes, resulting in a problem with construct validity and making interpretations difficult.

The present research considered client expectations to be a prior attitude of subjects and did not attempt to manipulate it. In this way the confounding of client expectations with other variables and questions regarding the success of manipulating a variable inherent to subjects is avoided.

McGill [1988b], when manipulating the importance of the client within subjects, found that client importance did not affect the recommendations of CPAs. Client importance here was intended to capture an economic variable, however, rather than client expectations.

Policy Implications

The research findings also offer evidence to policy makers regarding the consequences of adopting increased economic penalties for professional preparers. Not only are the results inconsistent with the original intent of the sanctions, the results have further implications for the tax structure itself. If commercial preparers serve taxpayers with lower incomes and fewer opportunities for aggressive reporting while CPAs serve wealthier taxpayers with increased opportunities for aggressive reporting, increased sanction threats may introduce a degree of regressivity into the effective tax rate structure. This outcome would occur as those who serve lower income taxpayers invest less time in reducing their clients liabilities (and are possibly less willing to adopt pro-taxpayer positions when ambiguous issues arise) while those serving wealthier individuals invest even more time in reducing their clients' liabilities (and are possibly motivated to be even more aggressive).

If increased sanction threats do result in reductions in the level of effort exerted by some professional preparers and those preparers do not or cannot distinguish between the types of items their efforts will identify, then the amount of total tax revenues actually collected may be reduced. To the extent that any reduction in effort spills over to tax-increasing items, as occurred in the experiment, total tax revenues may decrease as a result of the increased penalties.

If sanctions continue to be considered as a means for influencing preparers, efforts should be made to avoid the controversies and tensions that currently surround the issue. This might be accomplished by either avoiding blanket accusations involving professional preparers or giving specific recognition to the role of client advocate assumed by many preparers in the current system. If this role is not seen as appropriate by the government, potential changes in the role should be jointly addressed by both preparer organizations (i.e., the AICPA) and the government.

This change might be facilitated through changes in professional, graduate, and undergraduate education.

Other methods of influencing preparers which might be more effective than penalties should also be examined. Such positive influence attempts might include exemplary preparer programs, increased technical and adminstrative assistance, and taxpayer references.

Finally, a complete restructuring of the incentives for preparers could be considered. This change might include direct compensation to preparers by the government rather than, or in addition to, taxpayers. A change in the economic incentives provided to preparers by taxpayers and the government might balance the weight given to each group's expectations when considering ambiguous cases. This change could be accomplished by the use of fee supplements paid by the government to preparers or possibly through a referral service provided by the IRS. Preparers who meet certain criteria could be included on approved preparer lists from which recommendations are made to taxpayers by the IRS. In the extreme, government regulation of the tax preparation industry would offer tax administrators a significant degree of influence over preparers but such regulation might also lead to numerous other less desirable consequences such as a decrease in the use of preparers by taxpayers and reduced reliance on preparer recommendations when they are used.

Limitations

One limitation of this study deals with the construct identification problem discussed in Chapter 3. Reactance arousal can be attributed to one's own role-prescriptions or to the expectations of others. It cannot be determined whether the reactions of CPAs are due to their beliefs regarding their role in the tax system or to the expectations that are held by their clients. It would seem, and it appears from the factor analysis, that these two issues are intertwined. Which of the two is more important in causing the observed behavior is not determined.

Special care was taken to make sure the penalty threat was equal across preparer types. To accomplish this, differential pay structures and a proportional penalty were used. It is possible, however, that subjects perceived the threat differently. The lack of a preparer type by penalty interaction when testing the strength of the manipulation provides some support that the threat was seen as being equal by both groups. The observance of a boomerang effect of penalties on the effort exerted by CPAs also suggests that unequal subjective penalty strength was not a problem. While reduced compliance with the threat by CPAs might have been interpreted as being due to CPAs seeing the threat as weaker, the boomerang effect is not subject to this interpretation.

It is also commonly suggested that economic payoffs and penalties will not be salient to professional subjects in an experimental setting due to their relatively high wealth level compared to student subjects. It was hoped that the level of pay offered to subjects would avoid this problem. The observance of the hypothesized effects suggests that payoffs and penalties were salient.

The penalty structure used in the study differs from that currently faced by preparers in practice in at least two respects. First, the experimental penalty was a proportional penalty based on the amount of the tax underpayment rather than being a fixed-dollar penalty. It was feared that a fixed-dollar penalty might be perceived as stronger by non-CPAs given the relatively smaller payoff for each return prepared and the lower overall wealth level. If this were true and such a penalty was actually enacted, the effects on non-CPAs might be even greater than that which was observed experimentally. The effects of using a proportional penalty then are believed to be an underestimate of those effects which might be achieved using a fixed-dollar penalty like those currently used.

The second difference between the experimental penalty and those in real life is that the experimental penalty was described as a strict liability penalty. Preparers do not currently face strict liability penalties. However, the research was concerned with potential effects of increases in the current penalty structure. Recent years have seen the penalties faced by preparers increased steadily with the most recent being accuracy-related penalties with no negligence or fraud implications. In other areas of accounting as well as areas of law and product liability, the trend has been toward standards of strict liability. It was decided to use such a standard as an extreme in testing the hypotheses in this research project. It is possible, however, that reactions to penalties of other sorts could be different than the reactions observed here.

Another limitation deals with the period over which the observed effects might be expected to persist. If the reactions by CPAs in the experiment are caused by reactance, then as reactance subsides the boomerang effect may reverse. The length of time over which the observed results would occur is open to question. The literature suggests that reactance will be aroused and sustained as long as there is a belief that there is a freedom that is threatened. Reactance may subside if preparers faced with a new penalty regime or standard come to accept that new regime or standard. The stronger the original belief in the freedom is held, the longer arousal will continue. It is possible then that the response observed here experimentally would actually be a short-term response and possibly could disappear as beliefs held by current preparers change or as new preparers accept the new standard as status quo.

The selection of the sample is also a limiting factor on the generalizability of the results. The sample was chosen to represent the expected endpoints of a spectrum of preparers with varying attitudes and perspectives. To the extent that other types of professional preparers differ from those participating in this study, the effects of penalties on them may differ.

Generalizability of the results may be limited for other reasons as well. In the experimental setting used in this study, preparers did not face the same consequences they would face in real life. As such, the external validity of the study is subject to the same caveats as is most laboratory behavioral research. Additionally, it is possible that the economic payoffs may have resulted in subjects gaming rather than reacting as they would in real life since the subjects did not deal with actual clients.

Finally, the construct validity of the measures used in this study is a limiting factor. While it is believed that considering time and inquiries together is a reasonable measure of effort, and while time has been used as a surrogate for cost in a number of other disciplines, the construct validity of the measure used here have not been verified. If the dependent measures used here are not a reflection of subjects' investment in identifying potential items, then any conclusions based on these findings may be inappropriate. Likewise, five specific cases were used to determine aggressiveness. To the extent that actual cases encountered in actual situations differ from those used in the study the effect of sanction threats on the recommendations made by preparers may differ.

Future Research

The present research is the first to examine the possible effects of economic threats on the effort levels of professional preparers. As such, future research should seek to replicate these findings and test their generalizability. This could be done by examining different preparer types and by manipulating the type and expectations of the client. The ambiguous situations themselves should be varied to see if there are situations for which economic penalties might be an effective influence. Other types of ambiguity, such as the substantiation of client documentation, should also be examined to determine if different types of ambiguity are affected differently. Finally, the measures of the constructs of interest should be refined.

While the effects of penalties that are suggested by the economic relationships among taxpayers, preparers and the enforcement agency can be examined analytically, the assumptions underlying these relationships are subject to examination. Experimental economics offers a method for examining these relationships to determine if the assumptions are valid and if the effects hypothesized here are supported. If the predictions based solely on the economic model are supported in a controlled setting, the assertion that the present findings are not attributable to economic variables, but environmental and contextual factors, will be supported.

Finally, other means of achieving the same administrative goals should be examined. If the reaction to penalties is due to preparers' role prescriptions, ways to modify those prescriptions could be examined. If penalties do not produce the desired effects, or produce undesired side effects, alternate influence attempts should be examined. These include the effects of various types of positive influence such as exemplary preparer programs and the effect of a complete restructuring of the role of preparers in the tax system from a client advocate to an impartial judge.

APPENDIX A
ANALYTICAL DERIVATION OF HYPOTHESES

$H1_e$. An increase in preparer sanctions and penalties will result in a decrease in the level of search effort expended by professional preparers in the tax filing process.

The preparers' expected wage has been described as

$$E(W) = F(e) - P(e) - [a|r(e)]\ [b + S|r(e)]. \qquad (1)$$

The reported liability, r, affects the net wage through its impact on the audit probability and the strength of the sanction. Without affecting the form of the relationships, the reported liability can be dropped from equation 1. The indirect effects of effort on sanctions and audit probabilities can then be simplified and the function can be rewritten as

$$E(W) = F(e) - P(e) - [a(e)]\ [b + S(e)] \qquad (2)$$

A preparer chooses an effort level so as to maximize E(W) given b. The first and second-order conditions necessary for an interior optimum e are

$$F'(e) - [a'(e)]\ [b+S(e)] - [a(e)\ S'(e)] - P'(e) = 0 \quad (3)$$

and

$$F''(e) - a''(e)[b+S(e)] - 2a'(e)S'(e) - a(e)S'(e) - a(e)S''(e) - P''(e) < 0. \qquad (4)$$

Invoking the implicit function theorem

$$e^*_b = - W_{eb}/W_{ee} \qquad (5)$$

$$= \frac{-(-a'(e))}{F''(e)-a''(e)[b+S(e)]-2a'(e)S'(e)-a(e)S'(e)-a(e)S''(e)-P''(e)}.$$

Since by assumption $a'(e) > 0$, the numerator of e^*_b is positive. For a maximum to exist, the second order condition, and therefore the denominator of equation 5, must be negative. Therefore, e^*_b must be < 0.

Similarly,

$$e^*_S = - W_{eS}/W_{ee} \qquad (6)$$

$$= \frac{-(-a'(e))}{F''(e)-a''(e)[b+S(e)]-2a'(e)S'(e)-a(e)S'(e)-a(e)S''(e)-P''(e)}$$

< 0.

Q.E.D.

$H3_e$. An increase in sanctions will result in fewer aggressive positions being recommended by professional tax preparers.

Aggressiveness can be added to the above model as follows

$$E(W) = F(e,g) - P(e) - [a(e,g)]\ [b + S(e,g)). \qquad (7)$$

As above, the preparer will choose a level of aggressiveness so as to maximize E(W) given b and S. Following the same procedure, the first and second-order conditions for a maximum to exist are

$$F'(g) - [a'(g)]\,[b+S(g)] - [a(g)\,S'(g)] = 0 \qquad (8)$$

and

$$F''(g) - a''(g)[b+S(g)] - 2a'(g)S'(g) - a(g)S'(g) - a(g)S''(g) < 0. \qquad (9)$$

Again invoking the implicit function theorem

$$g^*_b = -\,W_{eb}/W_{gg} \qquad (10)$$

$$= \frac{-\,(-a'(g))}{F''(g)-a''(g)[b+S(g)]-2a'(g)S'(g)-a(g)S'(g)-a(g)S''(g)}$$

< 0

and

$$g^*_S = -\,W_{eS}/W_{gg}$$

$$= \frac{-\,(-a'(g))}{F''(g)-a''(g)[b+S(g)]-2a'(g)S'(g)-a(g)S'(g)-a(g)S''(g)}$$

$< 0.$

Q.E.D

APPENDIX B
EXCERPTS OF EXPERIMENTAL TASK

Instructions

Thank you very much for participating in this study. It is being conducted at the University of Florida but will be of interest to a number of parties, including your firm, your clients, taxpayers in general and the IRS. It is designed to examine a number of issues related to tax professionals and the tax return preparation process. We are interested in such things as the pricing of your services and the decisions you make when preparing returns and advising clients.

You will be given an abbreviated tax organizer for a new client. You will be asked to prepare the client's 1989 tax return to the best of your ability, and then answer a number of questions concerning your experience as a tax professional, your clients, and some demographic data.

When completing the following tax return, please proceed just as you would in real life. If there is additional information which you need to complete the return, you can ask the client (through the computer) for the information if it is available. This process will be explained shortly. You will also be asked how much you (or your supervisor) would charge a client for preparing this exact return. You may want to keep this in mind as you work.

While your responses are absolutely anonymous, the results will be compared with those of others in your firm as well as other firms, so accuracy is important. In addition to those in your firm, others will also be interested in this research, especially the Internal Revenue Service.

Description of Payoff

Given to all subjects

We realize your time is valuable and again thank you for your participation in this study. To compensate you for your time, and to make the task more realistic, you will be paid for the time spent completing the task. Your pay rate (in experimental dollars) will be based on the amount that you, or your manager, would charge the client for the return. Your response will be averaged with the responses of others at your firm, and your actual pay determined accordingly. Remember, your fee will be compared to other subjects for consistency and reasonableness. Any unusually high charges will be examined and adjusted via negotiation. The amount you charge then should be a reflection of the time and effort necessary to complete the return, as well as its complexity.

The average amount charged to the client will be converted to actual dollars at the rate of $.15 (for commercial services, $.03 for CPAs) on the dollar. For example, if you would charge the client $50 ($500) to prepare the return, you will receive $7.50 ($15). You will be paid once the experiment has been completed at your office.

After Completing Task

Considering the time and effort necessary to complete the tax return, its complexity and any potential penalties which you are subject to, how much will you charge for preparing the Singers' tax return?

Description of Penalty

High Penalty Group Only

There is considerable concern presently on the part of the IRS and other administrators regarding over-aggressiveness of professional preparers. It is suggested by some that preparers are overstepping their bounds, ignoring their obligations to the administration, and recommending reporting positions which are unreasonable. Such concerns are evident in the controversy surrounding the recently proposed changes to Circular 230 governing tax practice, which ties preparer penalties to taxpayer substantial underpayment penalties under Sec. 6661, and calls for the disbarment of preparers in certain circumstances.

In light of these concerns, you may be assessed a penalty if the liability you compute for this task is significantly LESS than that which has been previously determined be the experimenter. This penalty will be equal to 5% of your fee for every $100 of understated liability, and will be assessed by reducing your payoff. Of course, NO penalties will be assessed on OVERSTATED liabilities. An example will follow.

Penalties may be assessed if the return prepared by you is chosen for "audit" by the experimenter. Selection will be made at the experimenter's discretion and may be influenced by a number of items including, but not limited to, the reported tax liability.

The experimenter will be available to discuss any penalties assessed, and will abate any which can be shown to be improper under the circumstances.

Low Penalty Group Only

We realize that many items are subject to different interpretations and that the liability you calculate may be different from that calculated by others. As a practicing tax professional, we are interested in your interpretations and judgments, so please proceed just as you would in real life. Your pay will not be affected by any decisions you make or the liability you calculate.

Ambiguous Cases

Introduction

The following items also need to be settled. Each involves a seemingly ambiguous item, the treatment of which is not certain. Please read each item and make a determination as to how it should be reported on the Singers' return. There is no additional information to be obtained from the client nor any more research to be done. Make your determination based on the facts presented.

(Recall that there may be a penalty for understatement of the tax liability due to the treatment of these items. The penalty may be abated, however, if it can be shown that its assessment is improper under the circumstances. All conflicts will be resolved by the experimenter.)

Case One

Jim left his job with Orlando Engineering under unusual circumstances. In 1987, a client of his firm experienced an accident which a competitor purported to be a result of his firm's negligence. While Jim and the firm were cleared of all responsibility, his reputation was severely damaged. The firm let Jim go, and he was unable to get another job in Orlando. Jim sued the competitor for libel, and the court found in Jim's favor, awarding him $50,000 in personal damages. He also received $10,000 in lost wages for the two months he spent in Orlando looking for a job. The settlement was received in 1989.

Sec. 104(a)(2) excludes from income amounts received on account of personal injury, including injury to personal reputation. An award for the loss of income may be taxable unless collected from an accident and health insurance policy (Sec. 104(a)(3)). The tax consequences of other awards for lost income due to personal injury are unclear. Apparently drawing a parallel with Sec. 104(a)(3), courts sometimes draw a distinction between physical and nonphysical injuries, finding awards for lost income due to physical injury excludable from income, while those related to nonphysical injuries are judged taxable. A recent tax court case, however, judged an award for lost income due to damaged reputation to be excludable.

Should the $10,000 award for lost wages be included in taxable income when received in 1989?

1. NO, the $10,000 is EXCLUDABLE.
2. YES, the $10,000 is TAXABLE.

On a scale of 1 to 7, where 1="would definitely not include in income" and 7="would definitely include in income", how certain are you as to how you will treat the $10,000 award on this client's return?

1. Would DEFINITELY NOT include in income.
2. ...
3. ...
4. ...
5. ...
6. ...
7. ...
8. ...
9. ...
10. ...
11. Would DEFINITELY INCLUDE in income.

Case Two

Also in connection with Jim's prior job, he received an additional $2,000. This was paid to Jim by his former employer on account of his leaving. This amount was not owed to Jim for any specific back services, vacation pay, or the like, and was in addition to his normal salary. Jim and his boss had become good friends, and it was paid simply "to help tide Jim and his family over until he found a new job".

Sec. 102 excludes gifts from the taxable income of the recipient. However, it is often difficult to distinguish a gift from other transfers which are taxable. The intent of the donor is usually the deciding factor, with gifts being motivated by "love, affection, kindness, sympathy, generosity, admiration or similar emotion."

Will you include the $2,000 in Jim's taxable income?

1. NO, the $2,000 is EXCLUDABLE.

2. YES, the $2,000 is TAXABLE.

On a scale of 1 to 7, where 1="would definitely not include in income' and 7="Would definitely include in income", how certain are you as to how you will treat the $2,000 on this client's return?

1. Would DEFINITELY NOT include in income.
2. ...
3. ...
4. ...
5. ...
6. ...
8. ...
9. ...
10. ...
11. Would DEFINITELY INCLUDE in income.

Case Three

Jim started his new job at Ennox this year, and hopes to remain there for a while. While he worked for a much smaller firm before, he was qualified to be offered his current position.

After beginning work, Jim noticed that nearly everyone who had been promoted into management had a graduate degree of some kind, usually an MBA. He was informed by his boss that while the degree was not necessary to retain his new job, if he wanted to move up the ladder, he should also get his MBA. While his superiors did not do significantly different work, except that they also served as supervisors of particular projects, the degree signalled its holder as intelligent and aggressive. Jim began work on his MBA in 1989, and incurred $2,000 for tuition and books.

Employees may deduct education expenses as business expenses if they are incurred either to 1) maintain or improve the existing skills required in the present job or 2) to meet the express requirements of the employer to retain employment. A change in duties does not necessarily cause the expense to be nondeductible.

Will you deduct the $2,000 on the Singers' return?

1. YES, the $2,000 is DEDUCTIBLE.
2. NO, the $2,000 is NOT DEDUCTIBLE.

On a scale of 1 to 7, where 1="would definitely deduct" and 7="would definitely not deduct", how certain are you as to how you will treat the $2,000 for education expenses on this client's return?

1. Would DEFINITELY DEDUCT.
2. ...
3. ...
4. ...
5. ...
6. ...
7. ...
8. ...
9. ...
10. ...
11. Would DEFINITELY NOT DEDUCT.

Case Four

When the Singers purchased their new house, they also built a small indoor pool. This was done for Jim upon the advice of a physician, which Jim has documented. According to him, the pool is necessary to treat a heart condition, and is intended solely for his use. The cost of the pool was $6,000, but an appraiser estimated that it increased the value of the house by only $3,000.

Capital expenditures for medical purposes may be deductible to the extent they exceed the increase in the value of the related property. A taxpayer cannot, however, deduct expenses that have both therapeutic benefits and personal enjoyment unless the item is necessary and the only method of treating the illness. The IRS has previously disallowed the deduction for the cost of a swimming pool in some cases, even when advised by a physician. On the other hand, the courts have allowed such a deduction in some situations.

Will you take the $3,000 deduction for the pool on the Singers' return?

1. YES, the $3,000 is DEDUCTIBLE.
2. NO, the $3,000 is NOT DEDUCTIBLE.

On a scale of 1 to 7, where 1="would definitely deduct" and 7="would definitely not deduct", how certain are you as to how you will treat the $3,000 related to the pool on this client's return?

1. Would DEFINITELY DEDUCT.
2. ...
3. ...
4. ...
5. ...
6. ...
7. ...
8. ...
9. ...
10. ...
11. Would DEFINITELY NOT DEDUCT.

Case Five

Jim sold a piece of land during 1989 that he inherited from his grandfather in 1983. The land was valued at $3,000 on the estate tax return, which you have a copy of. However, when Jim first inherited the land, he attempted to sell it, and received an offer of $5,000. Jim has a signed copy of that offer which you have seen. The property was sold in 1989 for $10,000.

The basis of inherited property is the fair market value on the date of death. This is also the value used to determine the value for estate tax purposes, unless an alternate valuation date is used. In this case, the date of death was used for estate tax purposes.

What is the basis you will use for reporting the gain on the sale of the land?

1. $5,000, resulting in a gain of $5,000.
2. $3,000, resulting in a gain of $7,000.

On a scale of 1 to 7, where 1="would definitely use $5,000 for the basis" and 7="would definitely use $3,000 for the basis", how certain are you as to how you would report the gain on the sale of the inherited land on this client's return?

1. Would DEFINITELY DEDUCT.
2. ...
3. ...
4. ...
5. ...
6. ...
7. ...
8. ...
9. ...
10. ...
11. Would DEFINITELY NOT DEDUCT.

Sample Organizer Pages

The following are examples of the information given to subjects and the process they go through completing the task. Subjects are told that all items in quotation marks are filled in by the client while other amounts are part of a pre-printed organizer. All subjects work through an example before beginning the task.

DIVIDEND INCOME

	Name of Payor	amount	Prior Year
1.	Corp A	\`600'	600
2.	Corp B	\`400'	400
3.	Minnesota P&L	\`200'	
4.	Corp E \`ten shares'	\`113'	100
5.	Corp F		60
6.	Corp W		20
7.	Corp X		20
8.			

9. Go to NEXT page.
10. Go back to PREVIOUS organizer page.
11. Go back to the INDEX (You may then go directly to another page.
12. I am ready to QUIT.

If options 1 or 2 are chosen, the subject is presented with the following.

\`I believe I gave you all the information related to these dividends. Is there any more information you need?'

1. NO. Type 1 to return to the organizer.
2. YES. Type 2 to inquire further.

If option 1 is chosen, the subject is returned to the above organizer page. If option 2 is chosen, the subject is presented with the following.

THERE IS NO ADDITIONAL INFORMATION AVAILABLE

1. Type 1 to return to the organizer.

```
                      DIVIDEND INCOME
   Name of Payor                    amount        Prior Year
   1.   Corp A__________________  `600'_____________  600
   2.   Corp B__________________  `400'_____________  400
   3.   Minnesota P&L___________  `200'_________________
   4.   Corp E `ten shares'_____  `113'______________100
   5.   Corp F _____________________________________  60
   6.   Corp W______________________________________  20
   7.   Corp X______________________________________  20
   8.   _______________________________________________
   9.  Go to NEXT page.
   10. Go back to PREVIOUS organizer page.
   11. Go back to the INDEX (You may then go directly to
        another page.
   12.  I am ready to QUIT.
```

If option 4 is chosen, the subject is presented with the following.

```
    `This was a stock dividend of 10 shares.  There was
    no cash received, nor an option to receive cash.'


1. Type 1 to return to the organizer.
2. Type 2 to if you require further information.
```

If option 1 is chosen, the subject is returned to the above organizer page. If option 2 is chosen, the subject is presented with the following.

```

    THERE IS NO ADDITIONAL INFORMATION AVAILABLE


1. Type 1 to return to the organizer.
```

```
                         DIVIDEND INCOME
    Name of Payor                         amount         Prior Year
    1.   Corp A__________________   `600'_____________   600
    2.   Corp B__________________   `400'_____________   400
    3.   Minnesota P&L___________   `200'________________
    4.   Corp E `ten shares'_____   `113'_____________100
    5.   Corp F _____________________________________   60
    6.   Corp W______________________________________   20
    7.   Corp X______________________________________   20
    8.   _____________________________________________
    9.  Go to NEXT page.
    10. Go back to PREVIOUS organizer page.
    11. Go back to the INDEX (You may then go directly to
         another page.
    12.  I am ready to QUIT.
```

If option 6 is chosen, the subject is presented with the following.

```
    `There are no dividends from Corp W because I sold
    the stock during the year.  The sale should be listed
    in this organizer.'

1. Type 1 to return to the organizer.
2. Type 2 to if you require further information.
```

If option 1 is chosen, the subject is returned to the above organizer page. If option 2 is chosen, the subject is presented with the following.

```
    THERE IS NO ADDITIONAL INFORMATION AVAILABLE


1. Type 1 to return to the organizer.
```

```
                 RENT AND ROYALTY EXPENSES
                                    Amount         Prior Year
    1.   Advertising_____________ ` 75'_________________
    2.   Commissions___________________________________
    3.   Insurance_____________________________________
    4.   Mortgage interest_______`5,000'________________
    5.   Repairs_______________________________________
    6.   Taxes_________________________________________
    7.   Utilities_____________________________________
    8.   Other (please list)___________________________
    9.  Go to NEXT page.
    10. Go back to PREVIOUS organizer page.
    11. Go back to the INDEX (You may then go directly to
         another page.
    12.  I am ready to QUIT.
```

If option 6 is chosen, the subject is presented with the following.

```
    `I forgot the taxes because I paid them at closing -
    they weren't listed in my checkbook! Property taxes
    were $1,750 after being prorated for the last six
    months of the year when we owned the house.'

1. Type 1 to return to the organizer.
2. Type 2 to for more information.
```

If option 1 is chosen, the subject is returned to the above organizer page. If option 2 is chosen, the subject is presented with the following.

```
    THERE IS NO ADDITIONAL INFORMATION AVAILABLE


1. Type 1 to return to the organizer.
```

TAXES

Amount Prior Year

1. Personal prop taxes____________________
2. Real estate_________________________
3. Other_____________________________
4. ________________________________
5. ________________________________
6. ________________________________
7. ________________________________
8. ________________________________
9. Go to NEXT page.
10. Go back to PREVIOUS organizer page.
11. Go back to the INDEX (You may then go directly to another page.
12. I am ready to QUIT.

If option 2 is chosen, the subject is presented with the following.

`We just bought the house in 1989. I believe taxes are payable around January 1st so that 1990 will be the first time we pay real estate taxes.'

1. Type 1 to return to the organizer.
2. Type 2 to for more information.

If option 1 is chosen, the subject is returned to the above organizer page. If option 2 is chosen, the subject is presented with the following.

`We did pay real estate taxes on the new house at closing! The taxes were $800. Thanks for making me check.'

1. Type 1 to return to the organizer.

```
                     INTEREST EXPENSE
                                                  Amount
   Mortgage Interest
1.          Total debt secured by residence___`150,000'
2.          Fair market value of residence____`165,000'
3.          Cost or basis of residence________`165,000'
4.          Cost of home improvements_________________
5.          Total paid to financial inst._______`7,500'
6.          Total paid to individuals_________________
7. Personal Interest
8.   _______________________________________________
9.  Go to NEXT page.
10. Go back to PREVIOUS organizer page.
11. Go back to the INDEX (You may then go directly to
     another page.
12.  I am ready to QUIT.
```

If option 8 is chosen, the subject is presented with the following.

```
    `This interest isn't deductible anymore! That's
    another break we lose I guess!'

1. Type 1 to return to the organizer.
2. Type 2 to for more information.
```

If option 1 is chosen, the subject is returned to the above organizer page. If option 2 is chosen, the subject is presented with the following.

```
    `According to the bank, we paid $1,350 on my car
    loan for the year and $150 of credit care interest.'

1. Type 1 to return to the organizer.
```

When the subject has viewed all the organizer pages, or has indicated he is ready to quit by selecting option 12 on any page, he is presented with the following.

```
                          CAUTION

     THERE ARE NO MORE PAGES IN THE ORGANIZER.

   IF YOU SELECT `2' BELOW, YOU MAY NOT GO BACK
            OR ASK ANY MORE QUESTIONS

  IF YOU WANT TO REVIEW ANY PART OF THE ORGANIZER,
  SELECT `1'; IF YOU HAVE ANY FINAL QUESTIONS, SELECT
  `3'.

  1.  Type 1 if you want to go back to the first page
           (i.e. the INDEX).
  2.  Type 2 if you are DONE with the organizer.
  3.  Type 3 if you have any additional QUESTIONS to ask
           the CLIENT.
```

APPENDIX C
SUBJECTS' RESPONSES TO DEBRIEFING QUESTIONS

	Overall[a]	CPAs[b]	Non-CPAs[b]
Views regarding tax laws			
I believe the tax laws themselves are fair.[1]	7.46 (.576)	7.31 (.003)	7.58 (.001)
In relation to other t/ps, I believe the tax laws treat my clients...[2]	5.98 (.443)	6.14 (.690)	5.85 (.443)
In general, I believe the tax treatment of most items is very straightforward.[1]	5.60 (.015)	6.58 (.212)	4.83 (.026)
Views regarding the IRS			
How well are you able to interpret and apply the tax laws to specific situations as compared with IRS employees?[3]	3.43 (.007)	2.75 (.001)	3.96 (.001)
I believe the IRS enforces and administers the tax laws fairly.[1]	7.49 (.234)	7.17 (.001)	7.74 (.001)

	Overall	CPAs	Non-CPAs
Views regarding clients			
Percent of subjects believing clients hire them primarily			
to save taxes		8%	2%
to save time		3%	2%
due to complexity of return		72%	26%
to ensure accuracy		14%	61%
I believe my clients are open and honest with me regarding their income and deductions regardless of the effect they believe these items may have on their tax liability.[1]	3.74 (.027)	3.08 (.001)	4.20 (.001)
I believe my clients would be willing to tell an IRS representative preparing their return anything they would tell me as their preparer.[1]	5.95 (.006)	7.05 (.042)	5.09 (.062)
What percentage of your clients would agree with the following: "I would be willing to forego some tax savings from taking fairly straight-forward deductions in order to file a safer return"?	4.83 (.544)	4.58	5.09

Views regarding preparers	Overall	CPAs	Non-CPAs
I get a sense of personal satisfaction from reducing my clients' tax liabilities.[1]	1.96 (.008)	2.53 (.001)	1.52 (.001)
When preparing tax returns and advising clients my primary responsibility is to...[4]	8.11 (.010)	8.83 (.001)	7.54 (.001)
The recommendations I make concerning positions taken on the returns I prepare are determined...[5]	7.22 (.005)	6.28 (.478)	7.96 (.001)
On what percentage of returns have you knowingly reported an item which, if discovered, you believe would result in an increase in tax (i.e. an aggressive, not incorrect, position)?	1.72 (.001)	2.33	1.24
Professional tax preparers are a contributing factor to the present tax compliance problem.[1]	8.10 (.001)	9.44 (.001)	7.04 (.064)
Due to the complexity of the tax laws, professional preparers are necessary for their fair application to all taxpayers.[1]	3.23 (.825)	3.17 (.001)	3.28 (.001)
Practically speaking, who is ultimately responsible for deciding how the tax consequences of any ambiguous issues are reported in your clients' tax returns?[6]	6.43 (.364)	6.78 (.098)	6.15 (.757)
How would you describe yourself in relation to other professionals with commercial preparation services?[7]			
aggressiveness		6.50 (.235)	
competence		8.77 (.001)	
How would you describe yourself in relation to other tax professionals in national CPA firms?[7]			
aggressiveness			5.50 (.217)
competence			6.97 (.004)

	Overall	CPAs	Non-CPAs
Views regarding penalties			
If...penalties were increased..., do you believe that they would be effective in enhancing compliance among preparers in national CPA firms?[8]	5.15 (.003)	6.39 (.329)	4.17 (.001)
Do you believe significantly increased civil penalties would be effective in enhancing compliance by non-CPAs and commercial preparation services?[8]	4.33 (.379)	4.64 (.002)	4.09 (.001)
Do you believe significantly increased penalties will significantly affect the recommendations you make to your clients?[8]	6.23 (.581)	6.47 (.297)	6.04 (.941)
Do you believe that a significant increase in these penalties will cause a change in the nature of your relationship with your clients?[9]	6.02 (.330)	6.22 (.308)	5.87 (.632)

---

[a] number in parentheses represents the probability of getting greater t statistic when comparing the means of CPAs and non-CPAs.

[b] number in parentheses represents the probability of getting a greater t statistic when comparing the mean of the particular preparer type to the midpoint of the appropriate response scale.

[1] 1=strongly agree; 11=strongly disagree

[2] 1=much less favorably; 11=much more favorably

[3] 1=much more able; 11=much less able

[4] 1=the government; 11=the client

[5] 1=primarily by my own interpretations; 11=primarily by IRS guidelines

[6] 1=decided entirely by me; 11=decided entirely by the client

[7] 1=much less ...; 11=much more ...

[8] 1=definitely yes; 11=definitely not

[9] 1=yes - greatly enhance client advocacy; 11=yes - greatly inhibit client advocacy

APPENDIX D
RESULTS OF FACTOR ANALYSIS

Factor One: Effectiveness of Penalties	rotated factor pattern
Do you believe that significantly increased penalties would be effective in enhancing compliance among preparers in national CPA firms?	.84
Do you believe that significantly increased penalties would be effective in enhancing compliance by non-CPAs and preparers in commercial preparation services?	.75
Factor Two: Legitimacy - Causal Factor	
I believe that the IRS enforces and administers the tax laws fairly.	.71
In general, I believe the tax treatment of most items is very straightforward.	.68
Who is ultimately responsible for deciding how ambiguous issues are reported in your clients' tax returns?	.68
I believe that the tax laws themselves are fair.	.52
Factor Three: Legitimacy - Response Factor	
Due to the complexity of the tax laws, professional tax preparers are necessary for their fair application to all taxpayers.	.73
Do you believe that a firm practicing in the manner yours does makes such penalties necessary and/or justifiable?	-.65
How well are you able to interpret and apply the tax laws to specific factual situations as compared with IRS employees (e.g revenue agents)?	.54

Factor Four: Importance - Advocacy Role	rotated factor pattern
When preparing tax returns and advising clients, my primary responsibility is to ...(1=govt; 11=client)	.82
On approximately what percentage of returns prepared by you have you knowingly reported an item...which, if discovered by the IRS and pursued by them, you believe would result in an increase in tax liability?	.70
Factor Five: Importance - Satisfaction	
I get a sense of personal satisfaction from reducing my clients' tax liabilities.	.76
Factor Six: Importance - Client Relationship	
Do you believe that a significant increase in these penalties will cause a change in the nature of your relationship with your clients?	.72
Do you believe that a significant increase in these penalties will cause your clients to reevaluate your ability to serve them and begin preparing their own returns?	-.56
Do you believe that increased penalties and sanctions will significantly effect the recommendations you make to your clients?	-.56
Factor Seven: Importance - Expectations of Clients	
What percentage of your clients would agree with the following statement: "I would be willing to forego some tax savings from taking fairly straightforward deductions in order to file a safer tax return"?	.78
In relation to other taxpayers, I believe the tax laws treat my client...(1=less favorably; 11=more favorably)	-.53

REFERENCE LIST

Afifi, A.A. and S. P. Azen, Statistical Analysis: A Computer Oriented Approach, 2nd ed. New York: Academic Press, 1979.

__________ and Virginia Clark, Computer-Aided Multivariate Analysis, New York: Van Nostrand Reinhold, 1984.

Allingham, Michael G., and Agnar Sandmo, "Income Tax Evasion: A Theoretical Analysis," Journal of Public Economics I (1972), pp. 323-338

Anderson, Linda S., Theodore Chiricos and Gordon Waldo, "Formal and Informal Sanctions: A Comparison of Deterrent Effects," Social Problems 25 (1977), pp. 103-114.

Ayers, Frances L., Betty R. Jackson and Peggy Hite, "Factors Related to Tax Return Positions Recommended by Professional Tax Preparers in Ambiguous Situations", unpublished working paper, University of Oklahoma, October 1987.

Baer, Robert, Steve Hinkle, Karen Smith and Marshia Fenton, "Reactance as a Function of Actual Versus Projected Autonomy," Journal of Personality and Social Psychology 38 (1980), pp. 416-422.

Baron, David P. and David Besanko, "Regulation, Asymmetric Information and Auditing," Bell Journal of Economics 15 (1984), pp. 447-470.

Baumeister, Roy F., "A Self-Presentational View of Social Phenomena," Psychological Bulletin 91 (1982), pp. 3-26.

Beck, Paul J., Jon S. Davis and Woon O. Jung, "How Tax Audit Policies, Tax Rates and Uncertainty Affect Taxpayer Reporting Behavior," unpublished working paper, University of Illinois, October 1988.

Becker, G. S., "Crime and Punishment: An Economic Approach," Journal of Political Economy 76 (1968), pp. 169-217.

Bernsley, Mark, "An Alternative Approach to Compliance," Tax Notes (July 3, 1989), pp. 103-106.

Biondo, John and A. P. MacDonald, Jr., "Internal-External Locus of Control and Response to Influence Attempts," Journal of Personality 39 (1971), pp. 407-419.

Border, Kim and Joel Sobel, "Samurai Accountant: A Theory of Auditing and Plunder," Review of Economic Studies 54 (1987), pp. 525-540.

Brehm, Jack W., A Theory of Psychological Reactance, New York: Academic Press, 1966.

__________ and Millard Mann, "Effects of Importance of Freedom and Attraction to Group Membership on Influence Induced by Group Pressure," Journal of Personality and Social Psychology 31 (1975), pp. 816-825.

__________ and John Sensenig, "Social Influence as a Function of Attempted and Implied Usurpation of Choice," Journal of Personality and Social Psychology 4 (1966), pp. 703-707.

Brehm, Sharon S. and Jack W. Brehm, Psychological Reactance: A Theory of Freedom and Control, New York: Academic Press, 1981.

__________ and Martha Weinraub, "Physical Barriers and Psychological Reactance: Two-year-olds' Responses to Threats of Freedom," Journal of Personality and Social Psychology 35 (1977), pp. 830-836.

Brucks, Merrie, "Search Monitor: An Approach for Computer-Controlled Experiments Involving Consumer Information Search," Journal of Consumer Behavior 15 (1988), pp. 117-121.

Christiansen, Vidar, "Two Comments on Tax Evasion," Journal of Public Economics 13 (1980), pp. 389-393.

Clotfelter, Charles T., "Tax Evasion and Tax Rates: An Analysis of Individual Returns," The Review of Economics and Statistics, August 1983, pp. 363-373.

Cohen, Albert K., Deviance and Control, Englewood Cliffs, N.J.: Prentice-Hall, 1966.

Collins, Julie H., Valerie C. Milliron and Daniel R. Toy, "The Use of Tax Preparers: Issues and Implications," unpublished working paper, University of North Carolina, December 1988.

Coyne, Mary L., "Between Scylla & Charybdis: A Framework of the Incentives and Constraints of Tax Practice", paper presented at Internal Revenue Service Research Conference, Washington, D.C., November 1987.

Davis, Jon S. and Charles W. Swenson, "The Role of Experimental Economics in Tax Policy Research," Journal of the American Taxation Association 10 (1988), pp. 40-59.

Dean, Peter, Tony Keenan and Fiona Kenney, "Taxpayers' Attitudes to Income Tax Evasion: An Empirical Study," British Tax Review 1 (1980), pp. 28-44.

Dubin, Jeffrey A. and Louis L. Wilde, "An Empirical Analysis of Federal Income Tax Auditing and Compliance," National Tax Journal 40 (March 1988), pp. 61-74.

Duncan, William A., David LaRue and P.M.J. Reckers, "An Empirical Examination of the Influence of Selected Economic and Noneconomic Variables on Decision Making by Tax Professionals," Advances in Taxation 2 (1989), pp. 91-106.

Elffers, Henk, Russel H. Weigel and Dick J. Hessing, "The Consequences of Different Strategies For Measuring Tax Evasion Behavior," Journal of Economic Psychology 8 (1987), pp. 311-337.

Erickson, Maynard L. and Jack P. Gibbs, "Further Findings on the Deterrence Question and Strategies for Future Research," Journal of Criminal Justice 4 (1976), pp. 175-189.

Friedland, Nehemiah, Shlomo Maital and Aryeh Rutenberg, "A Simulation Study of Income Tax Evasion," Journal of Public Economics 10 (1978), pp. 107-116.

Goldberg, Susan and Michael Lewis, "Play Behavior in the Two year-old Infant: Early Sex Differences," Child Development 40 (1969), pp. 21-31.

Goldman, Morton and Donna Wallis, "Restoring Freedom when Pressured not to Select Alternatives," Psychological Reports 44 (1979), pp. 563-566.

Goode, William J., "Force in Human Society," American Sociological Review 37 (1972), pp. 507-519.

Grabitz-Gniech, Gisla, "Some Restrictive Conditions for the Occurrence of Psychological Reactance," Journal of Personality and Social Psychology 19 (1971), pp. 188-196.

Graetz, Michael J., Jennifer F. Reinganum and Louis L. Wilde, "The Tax Compliance Game: Toward an Interactive Theory of Law Enforcement", Journal of Law, Economics and Organization 2 (1986), p. 1-32.

Grasmick, Harold G. and George J. Bryjak, "The Deterrent Effect of Perceived Severity of Punishment," Social Forces 59:2 (December 1980), pp. 471-491.

Harmon, H.H., Modern Factor Analysis, Chicago: University of Chicago Press, 1976.

Hass, R. Glen and Kathleen Grady, "Temporal Delay, Type of Forewarning, and Resistance to Influence," Journal of Experimental Social Psychology 11 (1975), pp. 459-469.

__________ and Darwyn E. Linder, "Counterargument Availability and effects of Message Structure on Persuasion," Journal of Personality and Social Psychology 23 (1972), pp. 219-233.

Heilman, Madeline and Katherine A. Garner, "Counteracting the Boomerang: The Effects of Choice on Compliance to Threats and Promises," Journal of Personality and Social Psychology 31 (1975), pp. 911-917.

___________ and Barbara Ley Toffler, "Reacting to Reactance: An Interpersonal Interpretation of the Need for Freedom," Journal of Experimental Social Psychology 12 (1976), pp. 519-529.

Helleloid, Richard T., "Ambiguity and the Evaluation of Client Documentation by Tax Professionals," Journal of the American Taxation Association 11 (1989), pp. 22-36.

Hite, Peggy A. and Gary A. McGill, "An Examination of Taxpayer Preferences for Aggressive Tax Advice," unpublished working paper, University of Indiana, October, 1989.

Holmstrom, Bengt R., "Moral Hazard and Observability," The Bell Journal of Economics 10 (1979), pp. 74-91.

Internal Revenue Service, Office of the Assistant Commissioner of Research, Conference on Tax Administration, Washington D.C.:U.S. Government Printing Office, 1985.

__________, "Annual Report of the Commissioner of the Internal Revenue Service for 1985," 1986.

__________, "Survey of Tax Practitioners and Advisors: Summary of Results by Occupation," Washington D.C., June 1987.

__________, (1988a) "1987 Taxpayer Opinion Survey," conducted for the IRS, Department of the Treasury, Document 7292, January 1988.

__________, (1988b) "Income Tax Compliance Research: Gross Tax Gap Estimates and projections for 1973-1992," Department of the Treasury, Document 7285, March 1988.

__________, (1988c) "A Philosophy of Civil Tax Penalties," Executive Task Force for the Commissioner's Penalty Study, June 1988.

__________, "Commissioner's Study of Civil Tax Penalties," February 23, 1989.

_________, "Annual Report of the Commissioner of the Internal Revenue Service for 1989," 1990.

Jackson, Betty R. and Valerie C. Milliron, "Tax Compliance Research: Findings, Problems, and Prospects, "Journal of Accounting Literature 5 (1986), pp. 125-165.

__________ and __________, "Research on the Practitioner's Role in the Compliance Process: State of the Art", unpublished working paper, University of Colorado, October 1987.

__________, __________, and Daniel R. Toy, "Tax Practitioners and the Government," Tax Notes (October 17, 1988), pp. 333-341.

Johnson, Calvin, "True and Correct: Standards for Tax Return Reporting," Tax Notes (June 19, 1989), pp. 1521-1531.

Jones, Russel A. and Jack W. Brehm, "Persuasiveness of One- and Two-Sided Communications as a Function of Awareness There are Two Sides," Journal of Experimental Social Psychology 6 (1970), pp. 47-56.

Kaplan, Steven E. and Philip M.J. Reckers, "A Study of Tax Evasion Judgments," National Tax Journal 38 (1985), pp. 97-102.

__________, __________, Stephen G. West and James C. Boyd, "An Examination of Tax Reporting Recommendations of Professional Tax Preparers," Journal of Economic Psychology 9 (1988), pp. 427-443.

Keppel, Geoffrey, Design and Analysis: A Researcher's Handbook, Englewood Cliffs, N.J.: Prentice-Hall, 1982.

Kinsey, Karyl A., (1987a) "The Social Dynamics of Tax Encounters: Perspectives of Practitioners and Officials," unpublished working paper, American Bar Foundation, November 1987.

__________, (1987b) "Advocacy and Perception: The Structure of Tax Practice", unpublished working paper, American Bar Foundation, January 1987.

Klepper, Steven, Mark Mazur and Daniel Nagin, "Expert Intermediaries and Legal Compliance: The Case of Tax Preparers," unpublished working paper, Carnegie Mellon University, May 1988.

__________, and Daniel Nagin, "The Role of Tax Practitioners in Tax Compliance," unpublished working paper, Carnegie Mellon University, 1987.

Koskella, Erkki, "A Note on Progression, Penalty Schemes and Tax Evasion," Journal of Public Economics 22 (1983), pp. 127-133.

Kraut, Robert E., "Deterrent and Definitional Influences on Shoplifting," Social Problems 23 (1976), pp. 358-368.

Lewis, Allen, "An Empirical Assessment of Tax Mentality," Public Finance 34 (1979), pp. 245-257.

__________, (1982a), The Psychology of Taxation, Oxford: Martin Robertson, 1982.

__________,(1982b), "The Social Psychology of Taxation," British Journal of Social Psychology 21 (1982), pp. 151-158.

Logan, Charles S., "General Deterrent Effects of Imprisonment," Social Forces 51 (1972), pp. 64-73.

Long, James E. and Steven Caudill, "The Usage and Benefits of Paid Tax Return Preparation," National Tax Journal 40 (1987), pp. 35-46.

Marchant, Gary, John R. Robinson, Urton Anderson, and Michael S. Shadewald, "A Cognitive Model of Tax Problem Solving," Advances in Taxation 2 (1989), pp. 1-20.

Mason, Robert and Lyle D. Calvin, "A Study of Admitted Income Tax Evasion," Law and Society 13 (1978), pp. 73-89.

Mazis, Michael B., "Antipollution Measures and Psychological Reactance: A Field Experiment," Journal of Personality and Social Psychology 31 (1975), pp. 654-660.

__________, Robert B. Settle, and Dennis C. Leslie, "Elimination of Phosphate Detergents and Psychological Reactance," Journal of Marketing Research 10 (1973), pp. 390-395.

Mazur, Mark, and Daniel Nagin, "Tax Preparers and Tax Compliance: A Theoretical and Empirical Analysis", unpublished working paper, Carnegie Mellon University, 1987.

McGill, Gary A., (1988a) "The CPA's Role in Income Tax Compliance: An Empirical Study of Variability in Recommending Aggressive Tax Positions," unpublished Ph.D. dissertation, Texas Tech University, May 1988.

__________, (1988b) "CPA's Perceptions of the Effectiveness of Tax Practice Sanctions", unpublished working paper, University of Florida, March 1988.

__________, "The CPA's Aggressive Position Recommendation Decision: Situational, Attitudinal and Personality Factors," unpublished working paper, University of Florida, March 1990.

Meade, Janet A., "The Impact of Different Capital GAins Tax Regimes on the Lock-In Effect and New Risky Investment Decisions," The Accounting Review 65 (1990), pp. 406-431.

Milliron, Valerie C., "A Conceptual Model of Factors Influencing Tax Preparer's Aggressiveness," unpublished working paper, The Pennsylvania State University, 1987.

__________ and D. Toy, "Tax Compliance: An Investigation of Key Features," Journal of the American Taxation Association 9 (1988), pp. 84-104.

Mork, Knut A., "Income Tax Evasion: Some Empirical Evidence," Public Finance 30 (1975), pp. 70-76.

New York State Bar Association, "Comments on Proposed Modification of Circular 230," Tax Notes (March 16, 1987), p. 1113-1117.

O'Neil, Cherie and Karen Collins, "The Impact of Return Preparer Penalties on Small Practices," unpublished working paper, Virginia Polytechnic Institute and State University, 1989.

Perdue, Barbara C. and John O. Summers, "Checking the Success of Manipulations in Marketing Experiments," Journal of Marketing Research 23 (1986), pp. 317-326.

Petty, Richard E. and John T. Cacioppo, "The Effects of Forewarning of Persuasive Intent and Involvement on Cognitive Responses and Persuasion," Personality and Social Psychology Review 5 (1979), pp. 173-176.

__________ and __________, Attitudes and Persuasion: Classic and Contemporary Approaches, Dubuque, Ia: Wm. C. Brown, 1981.

Podolin, Leonard, "Treasury Raises Stakes in Circular 230 Proposal," Journal of Accountancy (April 1988), pp. 60-68.

Regan, J.W. and Jack W. Brehm, "Compliance in Buying as a Function of Inducements that Threaten Freedom," in L. Bickman and T. Henchy (eds.), Beyond the Laboratory: Field Research in Social Psychology, New York: McGraw-Hill, 1972.

Reinganum, Jennifer F. and Louis L. Wilde, "The Economics of Income Tax Evasion: Compliance in a Principal-Agent Framework," Journal of Public Economics 26 (1985), pp. 1-18.

__________ and __________, "Equilibrium Verification and Reporting Policies in a Model of Tax Compliance," International Economic Review 27 (1986), pp. 739-758.

Reinganum, Jennifer F. and Louis L. Wilde, "Tax Practitioners and Tax Compliance", unpublished working paper, California Institute of Technology, March 1988.

Reizenstein, R.C., "A Dissonance Approach to Measuring the Effectiveness of Two Personal Selling Techniques Through Decision Reversal," Proceedings, American Marketing Association, 1971, pp. 176-180.

Rosen, B. and M. F. Mericle, "The Influence of Strong Versus Weak Fair Employment Policies and Applicant's Sex on Selection Decisions and Salary Recommendations in a Management Simulation," unpublished working paper, University of North Carolina, 1979.

Ross, Stephen A., "The Economic Theory of Agency: The Principal's Problem," American Economic Review 63 (1973), pp. 134-139.

Roth, Jeffrey A., "A Status Report on the National Research Council Panel on Taxpayer Compliance: Tax Practitioners," paper presented at Internal Revenue Service Research Conference, Washington, D.C., November 1987.

Schmolders, Gunter, "Fiscal Psychology: A New Branch of Public Finance," National Tax Journal 12 (1959), pp. 340-345.

Schwartz, Richard D. and Sonya Orleans, "On Legal Sanctions," The University of Chicago Law Review 34, Winter 1967, pp. 274-300.

Scotchmer, Susan, "The Role of Tax Specialists in Voluntary Tax Compliance," Harvard Institute of Economic Research, 1985.

__________, "Audit Classes and Tax Enforcement Policy," American Economic Review 77 (1987), pp. 229-233.

__________, "The Effect of Tax Advisers on Tax Compliance," in Taxpayer Compliance: Social Sciences Perspectives, Volume 2, ed. J.A. Roth and J.T. Scholz, University of Pennsylvania Press; Philadelphia, 1989.

Shapiro, L., "IRS Director of Practice Shapiro Comment on Proposed Changes to Circular 230," Tax Notes (March 23, 1987), pp. 1150-1155.

Slemrod, Joel, "The Return to Tax Simplification: An Econometric Analysis," unpublished working paper, National Bureau of Economic Research, No. 1756, October 1985.

__________ and Nikki Sorum, "The Compliance Cost of the U.S. Individual Income Tax System," National Tax Journal 37 (1984), pp. 461-474.

Smith, Kent W. and Karyl A. Kinsey, "The Showdown at the 1040 Corral: Confrontations Between the IRS and Tax Practitioners," American Bar Association Annual Meeting, San Francisco, August 1987.

Spicer, M.W. and S.B. Lundstedt, "Understanding Tax Evasion," Public Finance 31 (1976), pp. 295-304.

Song, Young-dahl and Tinsley E. Yarbrough, "Tax Ethics and Taxpayer Attitudes: A Survey," Public Administration Review, September/October 1978, pp. 442-457.

Srinivasan, T.N., "Tax Evasion: A Model," Journal of Public Economics 2 (1973), pp. 339-346.

Steuerle, Eugene C., Who Should Pay for Collecting Taxes? - Financing the IRS, Washington D.C.: American Enterprise Institute, 1986.

Sue, Stanley, Ronald Smith and Cathy Caldwell, "Effects of Inadmissible Evidence on the Decisions of Simulated Jurors: A Moral Dilemma," Journal of Applied Social Psychology 3 (1973), pp. 345-353.

Tittle, Charles R., Sanctions and Social Deviance: The Question of Deterrence, New York: Praeger, 1980.

Townsend, Robert M., "Optimal Contracts and Competitive Markets with Costly State Verification," Journal of Economic Theory 21 (1979), pp. 265-293.

U.S. Congress, Tax Reform Act of 1976 (P.L. 94-455), 94th Congress, 1st Session, October 4, 1976.

__________, Economic Recovery Tax Act of 1981 (P.L. 97-34), 97th Congress, 1st Session, August 13, 1981.

__________, Revenue Reconciliation Act of 1989 (P.L. 101-239), 101st Congress, 1st Session, December 19, 1989.

Vogel, Joachim, "Taxation and Public Opinion in Sweden: An Interpretation of Recent Survey Data," National Tax Journal 27 (1974), pp. 499-513.

Von Neumann, J. and O. Morgenstern, Theory of Games and Economic Behavior, Princeton: Princeton University Press, 1944.

Westat, Inc., "Individual Income Tax Compliance Factors Study Qualitative Research Results," Prepared for the IRS, February, 1980.

__________, "A Survey of Tax Practitioners and Advisors", Prepared for the IRS, August 1987.

Wicklund, Robert A., Freedom and Reactance, Hillsdale, N.J.: Erlbaum, 1974.

__________ and Jack W. Brehm, "Attitude Change as a Function of Felt Competence and Threat to Attitudinal Freedom," Journal of Experimental Social Psychology 4 (1968), pp. 64-75.

__________ and __________, Perspectives on Cognitive Dissonance, Hillsdale, N.J.: Erlbaum, 1976.

__________, V. Slatum and E. Solomon, "Effects of Implied Pressure Toward Commitment on Ratings of Choice Alternatives," Journal of Experimental Social Psychology 6 (1970), pp. 449-457.

Wilde, Louis, L. "The Tax Compliance Game," paper presented at E. C. Watson Caltech Lecture Series, California Institute of Technology, April 1988.

Witte, Ann D. and Diane F. Woodbury, "The Effects of Tax Laws and Tax Administration on Tax Compliance: The Case of the U.S. Individual Income Tax," National Tax Journal 38 (March 1985), pp. 1-14.

Wolf, Sharon and David A. Montgomery, "Effects of Inadmissible Evidence and Level of Judicial Admonishment to Disregard on the Judgments of Mock Jurors," Journal of Applied Social Psychology 7, (1977), pp. 205-219.

Wortman, Camille B. and Jack W. Brehm, "Responses to Uncontrollable Outcomes: An Integration of Reactance Theory and the Learned Helplessness Model," in L. Berkowitz (ed.) Advances in Experimental Social Psychology (Vol. 8), New York: Academic Press, 1975.

Yankelovich, Skelly and White, Inc., "Taxpayer Attitudes Survey," Prepared for the IRS, December 1984.

Yitzhaki, Schlomo, "A Note on Income Tax Evasion: A Theoretical Analysis," Journal of Public Economics 3 (1974), pp. 201-202.

BIOGRAPHICAL SKETCH

Andrew D. Cuccia was born in New Orleans, Louisiana in 1960. He received his B.B.A. with concentrations in Accounting and Management from Loyola University, New Orleans in 1982. During his last two years as an undergraduate, he was also employed as an accountant for a local C.P.A. firm. After graduation, he joined the international accounting firm of Peat, Marwick, Mitchell and Company where he worked for four years as a tax specialist, earning his C.P.A. in 1983.

In 1986, Cuccia left public accounting and entered the doctoral program at the University of Florida. He completed the program in 1990, receiving a Ph.D. with a concentration in Accounting and Taxation as an interdisciplinary supporting field.

I certify that I have read this study and that in my opinion it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Doctor of Philosophy.

Sandra S. Kramer

Sandra S. Kramer, Chairperson
Associate Professor
of Accounting

I certify that I have read this study and that in my opinion it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Doctor of Philosophy.

John L Kramer
Arthur Andersen Professor
of Accounting

I certify that I have read this study and that in my opinion it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Doctor of Philosophy.

John G. Lynch
Associate Professor of
Marketing

I certify that I have read this study and that in my opinion it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Doctor of Philosophy.

Gary A. McGill
Assistant Professor
of Accounting

This dissertation was submitted to the Graduate Faculty of the College of Business Administration and to the Graduate School and was accepted as partial fulfillment of the requirements for the degree of Doctor of Philosophy.

December, 1990

Dean, Graduate School

UNIVERSITY OF FLORIDA
3 1262 08554 1885